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Editorial Notes Abroad.

No. XXXIII---Farming in Lincolnshire.

Not to dwell longer now in Norfolk, although my Notes might bear me out in a chapter or two farther on such a very attractive subject, let me revert for a moment to the Eleventh Letter in this Series, dating from Boston in Lincolnshire, July 25, 1859. Some glimpses were therein given of the practice of one or two Lincolnshire farmers in the northern part of the County, whence, coming down into the more central and eastern district in the vicinity of the city just named, I was obliged to leave a gap in the narrative which it is the purpose of the present writing to fill as well as may be practicable after such an interval of time.

The Fens--A Yeoman Farmer.

The farms I visited near Boston, were several miles to the northwest of that city, just upon the border of the fen country, and the wolds that rise between it and the higher inland district, known as the moors or Lincoln Heath. The drainage of these fens has been made very complete at a great expense. The original condition of the land was most "deplorable," writes Mr. Clarke of Long-Sutton; "being flooded with deep water every winter, in summer covered with thistles and nettles five feet high, and the annual number of rotten sheep was incredible." The area comprised altogether in what are called the East, West and Wildmore Fens, is about 40,000 acres. A capacious "catch-water" drain was first carried around, along the range of wolds, cutting off their outflow and carrying it away into the river Witham or elsewhere, while the whole surface of the almost perfectly flat lowland was cut over with canals to receive the fen-water at a lower level. These canals receive their contents from open drains, along the roads, between the fields, and wherever, in fact, they can be made serviceable in carrying off the surplus water, and are many of them so large that flat boats come up to bring manures from Boston and take away the produce to market. The soil, where I saw it, is mostly of a silty nature, resting upon clay, and is very fertile—kept so by the abundant application of fertilizing material, for English farmers do not depend upon Nature, as many do in our river-bottoms, spontaneously to bring forth grain and herb after their kind, but continually furnish the fields, however rich they may naturally appear, with the additional resources of art.

Mr. W. CHAPMAN, whom I visited at Medlam, near New Bolingbroke, was farming, I think, about two hundred acres, a part of it *his own land*—in this respect, as well as in the close personal attention given by him to his pursuit, reminding me more nearly than any other English farmer I saw, of some of our own best farmers. He was also, I believe the only "yeoman" with whom I spent any time, for this word does not signify in England what we generally take it to mean, the whole "middle class" of agriculturists, but is confined strictly to those who are proprietors as well as cultivators of the soil on which they live. About forty acres were in permanent grass, and the usual stock of the farm was 30 to 35 or 40 "beasts," and about 200 sheep. There were at the time of my visit, however, 220 sheep on the place. The pasturage upon these fens is wonderfully good, although there is a smaller proportion of it, as compared with arable land, in this particular district than in many others. Upon 20 acres Mr. C. was then pasturing 94 sheep, 18 beasts, and a mare and foal—the sheep having been there since "Lady Day," April 5, and the cattle since May. The stock is wholly taken off from the pastures from Oct. 15 or Nov. 1, according to season, for about a month, "to ease the land a little;" then it is re-admitted and the pastures again grazed until March, at the rate of about 2¼ sheep per acre. One "beast" is considered as about an equivalent for four ewes or five yearling lambs.

Feeding Sheep and Cattle.

The sheep were sheared in May, yielding an average of 10 pounds of wool per head, of a kind that sold last year for about 12*s.* (say $3) per fleece. Mr. C.'s aim, as a good farmer, was to clip 10 shillings' worth (say $2.50) of wool to every acre of his land. The breed is what is called the Lincolnshire, although, as I have heretofore remarked, a tinge of the Leicester has given more symmetry and earlier flesh-taking capacities to the larger frames of the original "Lincolns." On these fens, however, the Lincoln strain is more in the ascendant than is probably the case on the heath; the character of the climate or pasturage, or both, enables them perhaps to do better justice to a large frame than the upland farmers can, in putting on it a good coating of flesh at an early age. Mr. C. bred most of his own sheep, and considers the lambs to have cost him by the time they are a twelve-month old, about an average of 4[illegible]

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(say $11.25) per head. They then receive another six months' pasturage, and are marketed about October or during autumn, when they would bring 50*s*., thus affording 5*s*. profit besides the wool (which was 12*s*.) sheared in the spring, or a total profit of 17*s*. (say $4.25) per head.

For the purpose of breeding, Mr. C. hires a good ram from some careful breeder, to put with his own ewes—sometimes paying £9 or £10 for its services during the season.

The story of cattle feeding was not so fine a one. If a beast is put up the first week in November and fed for 6 months, he sometimes consumes during this time as much as half a ton of oil-cake, at a cost of £5. As a general rule, however, Mr. C. wanted a ton of cake to last three beasts during the feeding season, and sometimes the sale of the animal would net 20 to 30 shillings, above its cost and the cost of the cake it had eaten. But as a general rule with cattle that are bought in, feeding no more than pays for the oil-cake, in money-return; for his interest, his labor, and his fodder, the farmer has to seek returns in the manure that is made. Mr. C. generally raises 8 to 10 calves. In feeding the cattle, he gives oil-cake in morning, followlowed by oat straw for fodder; then bean straw at noon, and wheat straw for night and bedding.

The pigs of this part of Lincolnshire will weigh "30 to 40 or even 50 stone," when killed; the stone is 14 lbs.

Draining, Rotation and Crops.

All or very nearly all of Mr. Chapman's land is drained with two inch pipe tile, no collars used, costing 18*s*., (say $4.50) per 1,000, drains 33 feet apart, and from 3½ to 5 feet deep. The general depth, however, is three feet and a half, and the cost of draining is from £2 10*s*. to £3 per acre—the soil being a silty mold or clay, easily dug, while on the wolds, where it is often stony or a greater depth necessary, the cost is considerably greater. The price paid for digging is from 1*s*. to 1*s*. 2*d*. per chain of 22 yards, so that the cost per acre for labor alone may be rated at 18 or 20 shillings on the fens, while 3*s*. 6*d*. per chain would perhaps no more than cover the labor of digging on the wolds. The drains here on the fens are made to operate well sometimes *almost on a level;* for instance, in one field there was only a fall of *three inches* for a length of 5 chains, less than one inch to a hundred feet.

The system of farming on the wolds is quite commonly the ordinary Norfolk or four course rotation. But on the fens this is generally varied in one way or another. Mr. C.'s general practice he described to me thus:

1. Wheat with seeds sown about May.
2. Hay crop, feeding the stubble to the lambs, and allowing the land to lie all winter—then in spring, sowing
3. Beans, peas or oats.
4. A Wheat crop, and fallow after harvest—the next year putting in
5. Turnips—followed by wheat again as above.

Or else, in some cases, 3, beans or peas; 4, oats; 5, wheat, and, 6, turnips—making the course another year longer.

The rape crop is one often alternated with turnips in this district—that is, every alternate time that a field comes round for turnips, rape is substituted. Sown about the middle of June, it is ready to begin to feed in October, and may be taken off the ground in time for wheat in November, by putting say 250 sheep on a ten acre lot—which would be just in season to provide for them, while it is desirable to allow a respite to the pastures. An acre of rape, I was told, "won't go as far as an acre of turnips, but it seems to feed the sheep faster."

As to the production of the land now and the improvements effected in the agriculture of the locality of late years, Mr. Chapman informed me that his wheat crop had averaged for seven years right along *forty bushels per acre*, sometimes running up to 48 or even reaching 56. There was a decided change since he could remember; he knew that in old times five quarters (40 bushels) was considered a great crop, but now they "thought nothing" of anything less than six (48 bushels)—a change ascribed to "better management," including particularly more manure and better drainage.

Manuring--Hoeing the Wheat--Labor, &c.

The manure here is principally applied to the turnip crop, and, as far as it will go afterwards, upon the wheat ground, if not already too strong. About 15 tons per acre of good farm-yard dung is the dose he means to employ every other year. The breeding ewes eat the stubbles off as closely as possible, and the manure is carted out—say about the middle of February. On a meadow of six acres and a half, we saw a stack of hay probably weighing 14 or 15 tons.

The following statement will show, nearly, the disposi- of Mr. Chapman's farm last year:

In wheat,	50 acres.	In permanent grass,	40 acres.
In oats,	34 "	In peas,	12 "
In turnips, cabbages, mangolds and rape,	25 acres.		

And the remainder in grass and clover "seeds."

The wheat fields are sometimes hoed in spring, and the seeds sown and harrowed in; sometimes the seeds are drilled crosswise with the drills of wheat, which was thought the better way, and is more in use on the wolds. Clover is cut when well in bloom. It is not customary to salt the hay in curing. It is still more common, I understood, to hoe the wheat on the wolds than on the fen, the cost of the process being about 2*s*. 3*d*. per acre, and, subsequently, at about the time of earing, women and boys go through the field to pull the worst weeds—the cost of this second weeding varying according to the time it occupies.

The labor employed on this farm is generally that of four or five men, up to ten in the busy time, at 2*s*. (say 50 cents) a day; some "confined" men get 10*s*. a week, with house rent and a certain quantity of bacon, or it may be a quarter of wheat—equivalent altogether to 15*s*. or 16*s*. per week. The rent paid here for laborers' cottages is from £4 to £5 per annum. Noticing a cottage just completed, with three bed-rooms up stairs, and an out-house, all of brick, I asked a rough estimate of its cost; it had been built for about £90. Mr. C. was then re-draining a field with pipe, which had been drained with brush about 15 years ago.

The threshing is here done to a great extent by a portable engine going from farm to farm for the purpose. The price paid was 25*s*. per day, (say $6.25,) for an eight-horse power engine and thrasher, with two men and coals found. The grain was thus made ready for marketing, except one dressing; or a machine may be had at a little higher price, perhaps 28*s*. per day, to do the whole operation, including bagging and weighing. Forty to fifty quarters, (320 to 400 bushels,) is considered a fair day's work, taking 8 men and 4 boys to work to advantage, and burning one-third to one-half a ton of coals, at a cost there of 12*s*. to 14*s*. per ton.

I also spent some pleasant hours with Mr. C.'s brother-in-law, Mr. William Fowler, at East Kirkby. Mr. F. was situated more upon the wolds than Mr. Chapman, occupying about 400 acres, and I was much interested in our walk over his farm, and in the information obtained from him in conversation. Indeed I found it very difficult here, as well as in Norfolk, to live up to the arrangements I had

been obliged to make previously with respect to the allotment of my time; and there were some points upon which I found that so much could be learnt in Lincolnshire, that in going I only satisfied myself by mentally forming a determination—destined not to be accomplished—to return to the county again before finally setting out for home.

In the system of practice above outlined, there is a considerable similarity with the ways of farming already described in other localities. The same general objects are kept in view, and much the same agencies employed in reaching them. I have ventured to state the facts I collected in each case, however, even at the risk of repetition as to their general tenor; the details every where vary, more or less, and if there are coincidences which may possibly become tedious, they are all of a kind to impress an American farmer with the importance there universally accorded to careful culture, abundant manuring, thorough underdraining, improved live stock, judicious rotations, and better "management" throughout the whole round of the farmer's duties. It has been justly remarked that the principles that underlie the successful practice of Agriculture are the same everywhere; and it may be added that they are few and simple in themselves, however numerous and intricate may be the modifications they assume in different localities. The application of these principles is universally prominent in farming that is pecuniarily profitable, with only rare and occasional exceptions, and, unless the reader could trace the action of these principles, accompanied by the commentary of their results, more or less distinctly in every step of our progress among the farmers of Great Britain, we should certainly fail in accomplishing the chief end of the journey.

Mr. Chapman kindly brought me into Boston—a pleasant drive, with much that was interesting to see and discuss in the fields and water courses along which it carried us. On reaching this ancient and notable city, the reader may not care to share in our twilight stroll—to go with us to the evening service at Boston chapel, where we may see the memorial to COTTON MATHER, toward which our American Boston lent its fraternal contributions, or to visit the old church of St. Botolph, with its tower, discernible, it is said, by the sailor forty miles away, and the inscriptions that mark the last homes of the Boston fathers who slumber under the shadow of its walls. He might mind it less, indeed, to be invited with us to a seat in the company room at the Peacock Inn, before one of the juiciest chops, of which the savor still haunts a memory fully appreciative of the merits of English mutton—chops calculated, too, to convey a better idea of the Lincolnshire style of sheep, at least when eaten with a Lincolnshire appetite, than several pages of Martin, Spooner or Youatt.

— Suffice it to say, that the next morning I took the train from Boston to Sleaford, westward far enough to bring me among the farmers of Lincoln Heath. Here let me for the present pause.

TWO-HORSE IMPLEMENTS FOR CORN CULTURE.—The Prairie Farmer has a letter on this subject advising farmers to throw aside all their one-horse cultivators, harrows, plows, etc., and procure those which will work two rows at a time, to be drawn by two horses. Some such have already been introduced, and work well on soils rather mellow and free from sods and loose stone. One man can do double work by this means, and take care of twice the number of acres that he can with one-horse implements.

EDITORIAL CORRESPONDENCE.

The Central Park of New-York—Waldberg and the Attendance at Mr. Conger's Sale—Prices and Purchasers—Springside and Mr. Bement's Pets in the Poultry Yard—Thorndale and the Druid's Sketches—The Herd and the Buildings—The Farming and Live Stock of Dutchess County—Pleuro-Pneumonia and the Crops.

THORNEDALE, Friday Evening, June 29.

As the "platform" of the COUNTRY GENTLEMAN is a tolerably wide one, with a "plank" for the City as well as broad space for the practical and the beautiful of the Country, perhaps I may be permitted to open a very miscellaneous and hurried letter with a pleasant drive three days ago, in the new "Central Park" of Manhattan Island.

The idea that the northern side of the New-York City-Hall "would only be seen by persons *living in the suburbs*," has by degrees been abandoned even by the most stubborn of the Knickerbockers of the last generation. The progress of the place in less than ten years, indeed, both in actual growth and in public spirit, is illustrated by the anticipations of a Park foreshadowed from Albany through the medium of the *Horticulturist*, in 1851, as compared with the realization of DOWNING'S arguments now going forward. Mayor Kingsland hazarded the recommendation of a hundred and sixty acres of land; Downing daringly called for five hundred; the city has taken more than eight. Twenty streets higher it has gone to find it, than the location mentioned then; five and a half times the sum estimated then, has been paid for the soil; partially completed as it only is at the present time, the thousands are already making it a place of resort and recreation. The winter exercises of the skating pond are finding a counterpart in the shaded walks and "blossoming gardens" of June; and Downing's "lovely lakes," his "whispering trees" and "broad reaches of pleasure ground," are at last shaping themselves one after another to the view, under the impulse of two or three thousand active laborers.

It was a good fortune that threw me in the way of making my visit at the Central Park in the company of friends whose words of criticism and approval as we passed along bore the weight of practical experience perhaps unequalled, and of extended observation both in this and other countries. If I have not time to touch at all upon "the many beauties and utilities" that must grow out of the undertaking, nor yet to allude at length to the measure of judgment, good or bad, with which its details have thus far been conducted, it would at least be thankless in no way to refer to the general merits of the plan, the substantial and thorough manner in which the work is done, and the administrative ability displayed by Mr. OLMSTED, the Architect in Chief. Of the busy board of draughtsmen, by whose designs and plans the out-door labor is regulated and determined from the offices on Mount St. Vincent; of the Bluff across McGowan's pass, commanding the High Bridge in a setting of verdant scenery, and the bosom of East River, slumbering beyond; of the nurseries around as we descend, and the drains opening into the gorge beneath; of the drive along the grand reservoir from which the thirsty city is to receive its streams of Croton; of Bell Tower Rock tunnelled by an avenue of transverse traffic; of the lake with its two remaining Hamburgh swans, and the iron bridge, in the arch and design of which more than the usual quota of grace and adaptedness has been reached; of the pathways and heights that render the "Ramble" so interesting and attractive, and the effective rustic work of its two summer-houses; of the terrace, the shrubbery and

the flower-beds of brilliant color—of all that was embraced in our two or three hours' stay, I can scarcely venture an enumeration—this, and much more, we saw under the polite guidance of Mr. OLMSTED and Captain RENWICK, for whose courtesies our acknowledgments are justly due.

— Other engagements, a night, and the somewhat annoying delays of a disconnected journey having intervened, I found myself at length boated at Haverstraw on Wednesday morning in company with my present host Mr. Thorne, Hon. Wm. Kelly, Col. Johnson, C. S. Wainwright and A. R. Frothingham, Esqs., for Waldberg, the private landing of Mr. CONGER, for whose sale we were bound. There were quite a number of passengers upon the same errand with ourselves—among them Mr. Bradley of Vermont, the Messrs. Bathgates of Westchester, Mr. Thompson of Ballston, and others. From the landing it is an up-hill drive of several miles to the mansion of Mr. C., and perhaps three-quarters of a mile beyond to the farmstead.

The attendance was complimentary, probably numbering not far short of a hundred. Among those assembled whom we were glad to take by the hand, were Messrs. E. G. Faile, Lewis B. Brown, John Jay, L. G. Morris, J. L. Morris, James Brodie, Henry S. Olcott, S. Campbell, Henry Wood, Seneca Daniels, and many more, not to mention less particularly Thomas Galbraith, who keeps watch and ward so carefully over the Thorndale herd. The usual lunch being eaten, the auctioneer, Mr. LEEDS of New-York, commenced his task soon after two o'clock.

As the sale had been announced without reserve, all the animals offered, or nearly all, were disposed of—but at prices very low, from the character of their descent and individual merits, as well perhaps as because the terror of the Massachusetts cattle disease had not begun to abate in season to allow of purchasers remodeling their arrangements for the summer. Now that Mr. CONGER has disposed of the surplus from his herds, he will go to work with renewed opportunities for successful exertion, and when the public are invited to a second sale at Waldberg, they will at least have the guarantee of the present one, that he will fully and honorably live up to every tittle of whatever announcement may be previously made. The best prices, rather, at this time, were those obtained by the Ayrshires; the Short-Horns and Devons brought little more than fair rates for milch cows or other practical purposes; a stallion and two mares went quite low, and some lots of Berkshire and Suffolk swine scarcely better in proportion. The total of all sales was in the vicinity of $3,000. Mr. Daniels of Saratoga county was the largest purchaser, and bought, it was stated, with a view to carrying a herd overland to the Pacific side early another spring. Among other purchasers were Messrs. John Jay, D. L. Seymour, Henry Wood, E. C. Armstrong, A. R. Frothingham, A. Davidson, F. G. Frazier, F. W. Noble, Mr. Jolliffe, and, of the pigs, Col. Morris and Mr. Bathgate.

— Yesterday morning we called at Springside, when at Poughkeepsie on our way here. Mr. VASSAR'S grounds are as beautifully kept as ever, and our correspondent, Mr. BEMENT, as thoroughly engaged among the curiosities and rarities of the Poultry yard. The Fawns of tender age, with their spotted hides, and the parental Deer; the talking Cuckatoo; the Gazelle from Malta, with the roguish grace of its kind; the brilliant Wood Duck, a domesticated Currassow, and the Sand Crane with his hoarse voice, are among the aristocrats of the place, not to descend to such as fancy Rabbits and Dominique bantams.

And then succeeded a drive over the well-cared-for roads of this part of Dutchess, to the scene of the present writing, where I have been looking at the Short-Horns, the South Downs, and the swine of Essex birth. Of none of them am I proposing to inflict upon the inappreciative reader a prolonged critique. No establishment has ever better proved its own advertisement. The full accounts of the English herds, in the Farmer's Magazine of London, have brought us from the pen of the DRUID, more than one allusion to the strife for the "Duchesses" at the Tortworth sale; but under Mr. Strafford's revision, their author should not have ascribed to "an American company" what was due alone to the enterprise of an individual. A pleasant style, mingling the language of the sportsman with the odd epithets of the herd, dotting out a landscape or a farm by apt recurrence to familiar names,—by no means too exacting as a judge, but more ready to sketch kindly than cruelly—a fault or two is surely pardonable in the genial writings of Mr. DIXON, and I can wish him no better luck than sometime to be sharpening his pencil and his wits under the guidance of THOMAS, in the farmstead at Thorndale.

By comparing the herd of Short-Horns at present here, which numbers as usual nearly seventy, with the catalogue of last years' issue, we have a twelvemonth's farther witness of what our friend can accomplish with the best of English blood on American soil. Just a score of young things are to be chronicled as coming on, to replace the sales of 1859 and the sad loss by lightning of imported Maria Louisa and 1st Duchess of Thorndale. Grand Turk of Bolden's breeding and 2d Grand Duke from Tortworth Court, are finding their successors in the Thorndale Dukes, and Lalla Rookh with all her propensities to flesh was not too hearty to leave a young roan in the breeding boxes last December, which promises to do justice to his descent on either side. During the four years since I had had the opportunity of visiting Mr. Thorne, (see Co. GENT., June 5, 1856,) the buildings have been "straightened out" and many improvements introduced, and now in completeness and convenience, they compare favorably with any similar establishment I have seen on either side the water. Indeed, there is much that might be advantageously noted down for practical imitation, as there are also many details of interest in the general farming of Dutchess, which hereafter I may be able to present more fully and satisfactorily than in the present haste.

The story of Dutchess farming, however, is nearly that of many other of our older districts. It is a story of wheat culture nearly abandoned on a scale of much extent; of the feeding of more cattle and sheep, and, along the railway lines of the Hudson and Harlem, of the production of milk for the New-Yorkers; of improvement slowly gaining ground among a class of cultivators not too poor to have lost often their thousands in Western speculation,—whither, also, and to the cities, has too often ebbed the tide of younger blood, leaving age in the enjoyment of competence it is true, but lacking the enterprise and energy that are found when younger muscle holds the plow and gathers in the harvest. Improvement particularly in better tillage; improvement more slow in greater manuring and the growth of root crops; while, here and there, we find a farmer who is breeding up his stock to higher grades, cautiously buying a few pure breds, or depending upon a Short-Horn or Devon bull to work out the amelioration of its descendants. Such men as A. M. Underhill and Elihu Griffen of Clinton, R. G. Coffin and

Stephen Haight of Washington, Gideon Vincent of Union Vale, D. B. Haight of Dover, James Haviland of La Grange, and more whose names should be also catalogued among the good farmers and more careful stock-raisers in the county, are instances in point. With several of them, I had the opportunity of some conversation, and shall hope hereafter to extend my knowledge of their practice.

I have had also an interview with a very sensible and I believe a thoroughly qualified and experienced English veterinarian, Dr. H. MOORE, of Poughkeepsie, who has been for some years practicing in this country, but who did not leave Great Britain until after the importation there of the Pleuro-pneumonia from Holland, with which he appears to be fully conversant. All that he said strengthened my confidence in the entire correctness of the conclusions expressed in a late number of the COUNTRY GENTLEMAN, and in the soundness of the recent action upon this subject of the Executive Committee of our State Agricultural Society.

Here the country has been suffering from drouth. The corn is looking pretty well for the season—some say better than usual; the fields are certainly very clean, but must now be needing rain. Grass is getting more and more parched with every day of sunshine. Rye and wheat are rather light, I believe; oats had been coming on fairly until the present dry time, and may yet give a fair yield. They have a way here, quite commonly in vogue, I was told, although new to me, of sowing white turnips in the corn, at the time of the last cultivating, even as late as the 10th of July, and thus obtain often a good crop of this useful root with comparatively little expenditure of time and land.

L. H. T.

CULTURE OF HARD-BAKED SOILS.

To produce a proper seed-bed on a heavy or hard-baked soil, is always a difficult matter, requiring a great amount of labor, and often resulting imperfectly at last. Various methods of performing the work have been proposed, and a few thoughts on the subject may interest those of our readers who have to do with such soils.

If land containing a certain proportion of clay be plowed in the usual manner, comparatively *dry*, it will present a greater or less proportion of chunks or clods, of a size proportioned to the depth of the furrow, and the baked state of the soil, and very far from affording a seed-bed likely to produce any profitable crop. If plowed when comparatively *wet*, and dry weather follows before any further cultivation ensues, the same cloddy state is the result, nor would the preparation of the soil be enhanced by any working given while the soil was in a plastic state. To produce the best results in the easiest way, such soils must be worked when *just dry enough to crumble down;* when not so wet as to knead, nor so baked as to require great force to break it up, and only in chunks at that. We find it difficult to explain the matter plainly, but every farmer will understand our meaning from his own experience.

The question, then, is not when and how shall we best cultivate heavy soils; but how, when a heavy soil becomes baked, shall it best be pulverised—best reduced to that state of fine tilth to furnish a proper seed-bed for our crops. We cannot always take advantage of that crumbling stage of a heavy soil; our forces may be otherwise employed, or insufficient to do all our plowing while the ground is properly moist; hence we must look for other means to accomplish our ends.

A late number of the Boston Cultivator well describes the method employed in Great Britain. From the mildness of the winter of 1858–9, much plowing had been done on the tenacious soils, but owing to an extremely wet spring last year, followed by a remarkably dry summer, the land was in a hard baked state—the winter furrows lying in chunks and clods, almost like brick for hardness, but of much greater size. The turnip-sowing season was at hand, but the weather still remained dry, the clods showed no signs of crumbling. Something must be done or the season would be lost.

"The first operation," generally, "was to go over the land with grubbers. These penetrated to the depth of the furrows, breaking some of the largest lumps, and leaving nearly all of them on the surface. The crushers followed. It was not always that the so-called crushers were used. The ordinary form of roller, made of iron, stone or wood, was sometimes used. Yet on the hardest soils, the clod-crusher did the work not only the most expeditiously, but the most effectually. The clods were principally broken sufficiently fine with once going over. They probably would not have been if the crusher had been put immediately on the rough furrows, unprepared by the grubber."

It has been objected to the use of the clod-crusher, that it consolidates the under part of the soil. A roller, a heavy harrow, or even a common cultivator produces the same effect. Hence

"A Scotch farmer would not think of leaving his clay land just as a heavy clod-crusher had passed over it. He follows it with a grubber. This does not pack the soil; it lifts and lightens all the plow had disturbed, or even more if it is desired. If lumps have escaped the crusher, the grubber brings them to the surface, where the next passage of the roller or crusher crumbles them. The operations are repeated till a proper seed-bed is obtained. We saw plowed fields, the furrows of which were baked like sun-burnt brick, brought to a deep, mellow tilth, suitable for root-crops. Still it could not have been done by the clod-crusher alone. The alternate action of the crusher or roller and grubber, chiefly did the work."

Implements like the grubber and clod-clushing roller, are not adapted to land filled with stones, as are many of the heavy hard-pan soils of this country. Our clays, however, are usually free from them, and here their introduction would accomplish a good work. The latter has been introduced to some extent, and is found to work well.

In some remarks at the annual meeting of the State Agricultural Society, Hon. A. B. DICKINSON took a decided stand against the clod-crusher, giving his method of cultivating hard baked soils, by once plowing, so as to reduce them to the desired fine tilth for a seed-bed. This was to "set a sharp plow so as to cut twelve or fifteen inches deep, and from one to two inches wide, depending on the condition and certainty of its dissolving, of which every farmer, experienced in soils, can judge,"—and then to "shave up the hard soil without turning it over, but simply shaving it off far enough to make room for the next slice. The mold-board should be sufficiently high to raise it 2 feet, as the solid compact soil, when shaved up in this manner, will be increased in depth from its original twelve or fifteen inches to at least two feet."

We have no doubt from some experience with this method of plowing, that its effect would be precisely that stated by Mr. D., and that once plowing would effectually pulverize the heaviest soils. It would be difficult, however, to procure plows wells adapted to the work, or plowmen with a sufficient stock of patience to proceed thus slowly with an implement which they are in the habit of crowding to its fullest width of passable performance in the inversion of the soil. Yet there is hope in the case; we see much more thorough culture and care among farmers than formerly, and we shall in time learn to "make haste slowly," in order to ensure the attainment of the great ends in view.

A farther remark by Mr. D., is thus commented upon by the Boston Cultivator, and the paragraph is worth quoting here:

"A remark of Mr. D.'s in regard to the degree of pulverization that is desirable, is particularly worthy of notice. He thinks "all experi

enced wheat-growers will agree that wheat does much better where the soil is left a little coarse, or a portion of it in small chips, than where it is all pulverized and made fine." There is no doubt of this fact. Yet we frequently hear talk about the necessity of making the soil as fine as possible for ordinary crops. It is bad advice. Clay soils, reduced to powder, soon become puddled by rain, and run into mortar, to be baked by dry weather into a mass impervious to the roots of plants. By leaving them in the state described by Mr. Dickinson, the rain passes through as fast as it falls, and they remain comparatively light and friable."

SETTING OUT AN ORCHARD

EDS. CO. GENT.—I propose this fall to set out 250 standard pear trees—500 dwarf pear trees—500 apple trees—2 acres of strawberries—1 acre Lawton [New Rochelle is the proper name] blackberries, and 1 acre raspberries.

Will you please inform me through your paper—1st. What will be the probable cost of the above?—2d. What will be the best time to set out?—3d. Will it be necessary to plow or break up the whole of the land, or will it do to subsoil for the berries, and leave the balance until a year or two, only preparing the space necessary for the trees?—4th. Will the crop of strawberries *next* season, be apt to pay expenses, provided a market can be found that would net me $6 per bushel?—5th. What should the distance apart be for the apple and pear trees?—6th. The number of raspberry and blackberry vines required to fill one acre each?—The best manner to set out each of the above lot? J. P. D. *Chicago, Ill.*

The cost of the above would be about as follows, the prices varying, however, with the size or quality:

250 standard pears, $30 per 100,	$75.00
500 dwarf pears, $20 per 100,	100.00
500 apple trees, $10 per 100,	50.00
2 acres strawberries, say 40,000,	200.00
1 acre Rochelle blackberry, 1,200, $4 per 100,	48.00
1 acre raspberries, 2,000, $4 per 100,	80.00
Expenses of transportation, say,	47.00
	$600.00

The strawberries may perhaps be obtained cheaper, if a large patch of the right sort can be found, where the owner would be glad to get rid of his surplus plants at a low rate.

The best time for planting all these is in the spring, but the trees should be procured in autumn, when a better selection may be obtained, and when the delay of transportation would not interfere with early setting; when received, they should be securely "heeled in" for winter, by burying the roots and half the stems with mellow earth, taking special care to fill in with fine earth all the interstices among the roots, in the most thorough and compact manner. If evergreens can be had, it will be sufficient to cover but a portion of the stems with earth, if the tops are well protected with a layer of evergreen boughs—otherwise it would be safest to cover nearly the whole of the stems and branches with earth. It is indispensable that a dry spot be selected; and if danger is apprehended from mice, the earth should be high banked up all around, and made smooth, as mice will not ascend a bank of smooth bare earth under snow.

The best time for setting out the strawberries is in spring; but if our correspondent does not wish to lose time by waiting so long, he may put them out now, or as soon as the crop of berries has disappeared, and by taking sufficient pains, they will grow and bear a fair crop next season. If set now, all the large leaves should be cut off, the roots dipped in mud, and the plants watered when set, and then mulched with an inch or two of fine manure. If set much later than the present time, the plants will not become sufficiently strong and established to endure the coming winter, and the plantation will not be so good as if set early next spring. The Wilson strawberry may be relied on for 150 or 200 bushels per acre under the best culture; and plantations set now may bear 50 bushels next season. Our correspondent can make the rest of the estimate as to profits.

The whole surface of the land should be well prepared, except it be for the apples and standard pears. Strips 6 or 8 feet wide will do for a year or two, not longer; but if grass grows between, great care must be taken to bank up every tree late in autumn, with mellow earth, made compact and smooth, to prevent the attacks of mice. The standard pear trees may be about 20 feet apart, the dwarf pears 8 or 10 feet, or 6 by 12 or 8 by 12—the apple trees 30 to 40 feet. The strawberries may be set out in rows about 2½ or 3 feet apart, and about one foot in the row, for horse cultivation. The blackberries may be six feet apart, or perhaps better about 5 by 8 feet—the raspberries about 3 or 4 by 5 feet.

Sandy and Clayey Soils Contrasted.

A writer in the Rural New-Yorker, speaking of a recent mention of the advantages of a clay soil, by a correspondent of this journal, draws a contrast between light and heavy soils, from which we condense the paragraph below:

Clay has a strong affinity for ammonia; sand has little power to retain this essential gas. But after a summer rain a clay soil crusts over thickly, and refuses atmospheric food until the crust is broken; if not worked, in hot dry weather, the soil soon cracks several inches deep. Hence, though a sandy loam requires more manure than a clay, it requires enough less labor to make up for this, and if dressed with clay occasionally, will soon acquire the power of holding manure. So clays dressed with vegetable manure and underdrained, do not crust so readily or deeply, and properly worked will produce heavy crops of grass and grain. "It is true," adds the writer, "that a clay loam if well underdrained, is the best soil for grass, and that it will form a stiff sod quicker than a sandy loam. But while you can permanently amend a sandy loam, and make it forever retentive of manure by light applications of clay, which the frost will pulverize on its surface, you cannot lessen the tenacity of a clay loam by a mixture of sand. Clay and sand, particularly our calcareous clay, unite chemically, and form an adhesive mortar which when dry brings fire from the hoe."

A GOOD USE FOR DOGS.

At one of the meetings last winter of the Shelburne Farmers' Club, the subject of manures was up for discussion. Mr. D. O. Fisk spoke of the importance of taking better care of this important article by saving what we *do make now*, by covering the manure heap, making cellars under every barn, applying plaster, muck, loam, and anything that will answer as an absorbent; thus saving that valuable portion of every farmer's capital—the liquid manure. He objected to the practice of buying foreign or patent manures extensively; likes guano, but cannot afford to buy it; thinks the money required to purchase a ton of guano, laid out in corn and rye and fed to *working hogs properly managed*, will yield *double* the profit to any farmer in this town. He spoke earnestly in favor of doing something for pasture lands—the right arm of every farmer. In closing, he very properly rated *animal manures* as taking the lead of all others, and, under this head, gave the following receipt; mix with ten loads of muck, five dogs, (!) one barrel of lime, ten bushels of unleached ashes, compost thoroughly, and apply liberally.

Induce the farmers of the country to practice largely on these principles, and there will be a better prospect for profitable Sheep Husbandry among us, as well as for good crops of corn and wheat and grass.

[For the Country Gentleman and Cultivator.]

Raising, Hoeing, and Thinning Out Root Crops.

Eds. Co. Gent.—Hoeing carrots and other root crops being now in order, with those that raise such crops, and several farmers having called on me and wondered that I got along so easily with my roots, and that my carrots, parsnips, &c., had so much less weeds among them than theirs had, it has put me in mind of writing, and letting the numerous readers of the Co. Gent. know the course I pursue to raise these crops, hoping that any one who has tried the course here recommended, as well as other methods, and has found a better way, will let us know all about it.

The first thing in raising roots, is to get the land as clean and free from weeds as possible. To do this, the ground should be plowed as soon as it is dry enough in the spring. Then harrow lightly, and let it lay until the weather gets warm and the weeds well started. Then I begin with the part intended for parsnips, which are sown about or a little before the middle of May, or a little before corn planting—and give the ground a thorough working, thereby destroying the worst crop of weeds of the season; and in fact doing the first hoeing before the seed is sown.

The land for carrots and mangolds, is prepared the same way, a week or two later. The ground for ruta bagas, sweet turnips, &c., should be worked over about the same time, and then again before sowing, which should be done sometime the fore part of June.

In raising roots, plenty of seed should be sown, not only to ensure a good stand of plants, but it is much easier to hoe up all that are not wanted, where they are too thick, than it is to look up the scattering plants when they are small, and not easily seen among the weeds, while there is no difficulty in seeing the rows when they stand thick, and they may be be hoed up much closer, leaving a very narrow space for the plants, and but few weeds standing, that will have to be taken out one at a time.

Now we come to hoeing, and find—if the land has been well attended too, for a year or two back—that there is comparatively few weeds, and that these have not got much the start of the crop yet, as we hoe about the time the rough leaf begins to start. We also find that the plants stand very thick in the row, perhaps ten times as many as should be allowed to grow; and to a new beginner, it looks like an endless job to weed and thin them out. But with a light new hoe, with the corners standing out well, we commence first by hoeing along each side of the row, hoeing up weeds, plants and all, except a narrow strip, about half an inch in width, more or less as the plants stand thick or thin, in the center of the row. Then with the corner of the hoe pick out the weeds from among the plants that are left. There still being many more than we intend to grow, we find it a very good way to do part of the thinning out the first hoeing, so that in taking the weeds from among the plants, it is very easy to hoe out a portion of the surplus plants, still leaving more than is intended to grow to be taken out the same way when they are hoed again, thus doing all the weeding and thinning out with the hoe. There is much less difficulty in doing this than at first sight might seem to be the case. The new beginner will have to be a little careful at first, and learn to carry a steady hand; and also learn the many different ways the hoe can be turned and applied, so as to bring the corner on to any weed that may be standing very near to the carrot, or any other root he wishes to save, in such a manner as to remove the weed without injuring the plant. This, though it will appear somewhat difficult at first, is easily done when a little used to it, and he will soon learn that by carrying a steady hand and turning the hoe the many different ways that may be required to meet each particular case, that he can weed and thin out roots much easier and faster with a hoe than he can with his fingers. He will also soon learn to have confidence in what he is doing, and be able to make as quick and handy motions as in ordinary hoeing.

Another thing in regard to hoeing roots is, that it is easier, cheaper, and better for the crop to hoe often, and thus not only keep the ground mellow, but by hoeing before the weeds get much size they are scarcely any trouble, except what few may be in the rows, and these being small are easily taken out with the hoe. It should always be kept in mind that a small weed can be taken out of the row easier and quicker with a sharp cornered hoe than with the fingers, while a large one, with strong spreading roots, can only be removed by hand, with more or less difficulty and danger to any tender plant it may be near to.

All roots should be attended to, more or less the latter part of the season, and on no account should any weeds be allowed to go to seed. There are many kinds that will come up and go to seed after the usual time of hoeing is past. And although they may not make much of a show in the crop, yet there will be sufficient seed matured and scattered on the ground to make trouble for years after. While it will take but very little time to go through them two or three times in the latter part of the summer and destroy all the scattering weeds that make their appearance. By so doing, and manuring with well rotted manure, roots can be grown on the same land year after year with but little trouble from weeds. The different kinds being made to succeed each other in rotation, will, in a great measure, answer as well as raising them in rotation with other crops.

Another advantage in having several different kinds is, that not being all sown at one time, the hoeing wont all come at once, but may be done at odd spells so as not to interfere with other work on the farm but very little.

Western N. Y., June, 1860. P. F.

[For the Country Gentleman and Cultivator].

Trailing Annuals and their Enemies.

Eds. Co. Gent.—Last year I gave you a remedy for the attacks of insects upon melon, cucumber, squash, pumpkin, and other vines, which proved the most efficient among the almost innumerable remedies advanced by books, papers, &c., in every direction. But this year I have hit on one still more efficient; I might say, effectual. It consists simply in placing calls or small cages, each containing a hen with her chickens, in different parts of the "patch,"—say 40 or 50 feet apart. The chickens not only eagerly seek and devour the insects, but also keep the bugs in continual motion, they being very timid and easily scared, especially the striped bug. One little chicken, with keener eyes and nimble legs, is worth half a dozen men. The application of liquid manure is also strongly adviseable. I almost despaired this summer of being able to raise a single melon, until, as a *dernier resort*, I luckily hit upon the "Eureka." Necessity is indeed the mother of invention. Try it readers of the Country Gentleman, and report your opinion. Charles Stewart. *Penn.*

[For the Country Gentleman and Cultivator.]

PROTECTING TREES FROM RABBITS.

Messrs. L. Tucker & Son—I noticed in Country Gentleman, one of your correspondents is at a loss to know how to protect dwarf trees from rabbits. My plan is simple, effectual and durable. I make one tree protect another. Select chestnut saplings, rather larger in diameter than the stock to be protected; slit the bark say two or three feet; ring top and bottom; twist the bark off and enclose the stock; it will remain on for three or four years. I think there is another advantage; in locations subject to late frosts, it would prevent the sap from rising, acting as a shade to the stock. Wm. McKibbin.

Buck Valley, Pa.

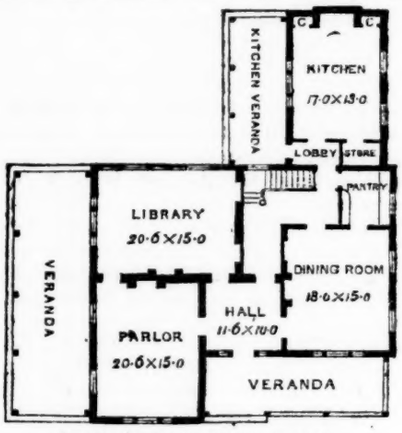
To Destroy Worms on Apple Trees.

In the morning when the worms are in their nests, take a shot gun and climb the tree; put in a charge of powder, (without shot or wads, of course,)—put on a cap, hold the muzzle about a foot from the nest, and discharge the piece. Thousands of nests can be obliterated in a short time. A single trial will convince a man whether it is best to set a few trusty boys at the work. B. *Conn.*

AN IRREGULAR COUNTRY HOUSE.

We are indebted to CALVERT VAUX'S excellent treatise on "Villas and Cottages" for the accompanying design and plans of a Country House of some pretension. Mr. V. remarks:

"This design was prepared and executed for a gentleman of Newburgh; and the general idea of the plan includes so much that is called for by the American climate and habits of life in the northern states, that it will probably be better worth the attention of those who wish to build a moderate-sized cheap house, with a kitchen above ground, than many other plans of more pretension. It possesses one convenient quality, which some other styles of plans cannot be arranged to include, for it admits of many modifications, without sacrificing its advantages. It may be completely altered in outside appearance, and doubled in extent of interior accommodations, and yet be in reality the same plan. It can be adapted to almost any situation by a proper arrangement of the

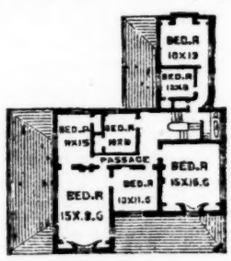


PLAN OF PRINCIPAL FLOOR.

oofs. Thus, for example, on an elevated and somewhat open site, such a one as this house occupies, a roof of only moderate pitch is desirable. On level ground, or in a valley, a high pitched roof should be preferred. It is also an economical plan for the accommodation afforded, as will be seen by the particulars of cost that are annexed. The house, as now finished, is constructed with an eight-inch brick wall, furred off off outside, and covered with clap-boards in the ordinary way followed in a wooden building. This plan of construction was adopted in accordance with the special request of the proprietor, who preferred it to any other method. Its advantages are, that it secures to a certainty a perfectly dry interior wall. On the other hand, it seems undesirable to have a brick house and to give it the appearance of a wooden one, as brick is the superior and more durable looking material. The accommodation may be thus described: A veranda-porch on the east provides a covered approach to the front door. The principal hall, 11 6 by 10 feet, gives access to the parlor and library, both of which are on the south of the house, and also to the dining-room. Another door opens on to a staircase-hall, which is easily accessible either from the principal rooms or from the kitchen wing. This is desirable, as the scale of the house would not warrant a second staircase. An east and a south veranda are supplied to the principal rooms, but each has windows that are unobstructed by any veranda. The dining-room connects through a pantry with a kitchen wing, which is also approached from the main body of the house under the staircase. A lobby opens on to a kithen veranda facing south, that provides a servant's entrance, and is convenient for hanging out clothes under cover in rainy weather. A kitchen 17 by 13, fitted up with closets, wash trays and store-room, completes the accommodation on the main floor and wing. By this plan the disadvantages of living in the basement are entirely avoided, and the lady of the house can superintend her servants with ease and comfort.

"In the chamber plans will be found five bed-rooms and a bath-room and water-closet; and in the wing two bed-rooms and a house-maid's sink. All these rooms are supplied with registers near the ceiling, that communicate with foul air flues separate from the chimney flues. In the garret over the bath-room is a large well-lighted linen-room; and as this is planned on the half-landing, it is very easy of access from the chamber-floor. A large store-room, the size of the bed-room over the dining-room, is finished off under the roof in a common way, and is secured with a door after being enclosed from the stairs by a plastered partition. The remainder of the space is open and unplastered. It makes a very roomy garret, with plenty of headway all over it; but the windows in the peaks are of course close to the floor, and it was never intended that any bed-rooms should be fitted up here. The roof is covered with shingles, the flat being floored and covered with canvas. In the basement are cellars and furnace-room, the kitchen wing foundations not being carried down farther than was necessary to keep clear of frost. In this house special precaution was taken, by the proprietor's request, with regard to the plumber's work. All the pipes, hot, cold, and waste, were enclosed in a tin envelope fitted tolerably close to the pipes. As the work proceeded, this tin case was soldered up every here and there, and particularly where the pipe is led through the wall, in the first instance, and

BASEMENT.



CHAMBER PLAN.

where it starts from the boiler. By this means the little insects that work their way from below, and are often found about water fixtures in rooms, are prevented from crawling up and down, and breeding among the warm pipes, as they are tempted to do in many situations.

"The carpenter's contract for this house was taken at $3500; the mason's at $2500; the remainder of the work was done by the day.

"After the contracts had been made, the proprietor left the work entirely in the hands of the architect; and with the exception that hard walls were substituted for brown walls throughout, and that some trifling alterations were made in the arrangements for the linen-press, the plans, as signed, were faithfully executed for the contract amount, without any difficulty whatever. The carpenter's and mason's extras, which amounted to $350, included the change from brown

wall to hard finish, and all the work appertaining to a large out-building at some distance from the house."

It will be perceived that this house, which cost about $6000, might have been built much cheaper of brick in the ordinary way; and at a still less sum, or at one-half its actual cost, if built of wood only. We do not recommend it for its mode of erection, but for its admirable plan and fine exterior views.

WHEAT CULTURE ON LIGHT SOILS.

By a "light soil" we mean one of a loamy and porous character—the opposite of those containing considerable clay, and "heavy" or compact in their nature. A sandy or gravelly loam, never becoming baked into clods, presents very different characteristics from one liable to the latter state, under certain conditions of drouth and moisture, and may be cultivated in a different manner, and with far less regard to times and seasons. Hence we have thought best to divide some hints we propose to offer on wheat culture—giving in another article some thoughts on the preparation of heavy soils.

In the first place, we may remark that summer fallowing, save for the simple purpose of cleaning the land of weeds, is not essentially requisite for wheat growing on light soils. Indeed, it may be injurious rather than beneficial, by producing too light a state of the surface soil for this crop.

If the land be weedy, however, a thorough summer fallow will most thoroughly eradicate them from the soil. Weeds, as we have said before, have been divided into two classes; those which increase by their seeds, and those which are propagated principally by their roots—an essential distinction as regards the means used for their destruction. The weeds produced from seeds can only be eradicated by burying all the seeds where they will germinate—near or upon the surface—and then destroying them by tillage. To this end not only should the plowings be frequent but the division of the soil as perfect as possible. To destroy weeds which propagate by the root, we must bury them deeply and perfectly with the plow, or by shallow surface tillage cut them up by the roots and expose to the sun and air.

On light lands, not particularly weedy, what is called a "green fallow" may be employed. Field peas sown thickly will effectually cover the surface and smother all other vegetation, as well as ripen sufficiently early for wheat sowing. They take little from the soil, and leave it in a fine, mellow state, ready with a single plowing for the autumn crop. Beans, planted in drills or hills, have the advantage over peas, that they may be cultivated during their growth, and the preparation of the soil thus furthered during the summer. They are of the same character in their demands upon the soil, but do not always ripen as early as is desirable in order to prepare in good season for wheat. Corn is a good cleaning crop, but ripens too late for wheat, as well as takes from the soil the same elements as the latter crop. The same is true of timothy, and this is an important reason why wheat growers should prefer clover hay and pasturage, especially on their wheat soils.

A light soil, say a clover ley, if sufficiently rich for wheat, may bear an intervening crop of peas or beans, and then be sown to wheat without additional manure. But if not in good heart, or if any spring grain crop be grown during the summer, it may still grow wheat if properly manured for that crop. We have now a good crop of wheat on the ground, sown after barley and spring wheat, with some twelve loads of fine compost (muck and barn manure,) per acre. Twenty loads would have given a better crop, and few light soils, whatever their condition as to fertility, but would bring profitable returns for the application of manure; not deeply covered, but placed near the surface.

As to the depth and character of the plowing, it must depend to a great degree upon the nature of the subsoil. If readily made fertile, it should be brought to the surface, and deep plowing would produce the best result. If sterile, we should not advise exposing its barrenness, but would break its depths for other than the wheat crop, plowing in the fall or subsoiling for some spring grain or root crop.

A loamy soil, in clover, may be broken up after the hay is taken off, and then, aided by a light dressing of manure, produce a good product of wheat. It should be turned under with a flat furrow, and the manure worked in thoroughly with the surface soil. We have found a light plow, or gang-plow, an excellent implement for covering manure, and also for wheat, and prefer to use it without any subsequent employment of the harrow, in order to leave the surface in ridges, the better to retain the snows of winter, as well as by their crumbling down under the spring frosts, to furnish a mulch for the roots of the wheat growing in the furrows, thus enabling the plants the better to withstand the winter.

There is this advantage in devoting light soils to wheat growing—the labor of preparation is less than that on heavy soils, and their warm, quick character hastens the maturity of the crop, thus furnishing additional security against the attacks of that potent enemy, the wheat midge. The heavy soil, properly prepared and in favorable seasons, will produce the largest crop of wheat, and that of the best quality; but under less favorable conditions, presents greater liability to failure. To these considerations we shall give some thoughts hereafter, and hope our readers will join with us in the discussion of the whole subject of Wheat Culture.

[For the Country Gentleman and Cultivator.]

IMPROVEMENT IN THE HAY-RAKE.

I have a small but very important improvement on the Revolving Horse-Rake. It consists simply in bolting the handles and side-pieces fast together at *a*, (Fig. 1,) so that there is no spring or working, as is usually the case. The piece of wood that holds the steel spring on the handles, is about 12 inches long, 1½ inches thick, 4 inches wide, represented in side view by Fig. 2; *b* is the spring, 1½ inches wide, with a bend at the bottom upwards, half or three-quarters of an inch, to prevent the spring from getting out of place when the rake revolves; *c*, (Fig. 1,) shows the steel spring as resting on the rake-tooth, holding it firmly.

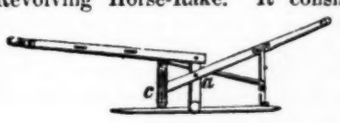


Fig. 1.

Fig. 2.

You will discover by this arrangement, that the rake is bolted together on both sides with two good bolts, with nuts to them. Understand there are two springs, resting on two rake-teeth, and when the rake revolves the springs work like a charm. As usually made, the above named pieces of wood are nailed on slanting, and spring outward when the rake revolves; the handles, resting on round pins, allowing the rake-teeth to spring them in at every revolution.

This rake, made as I have endeavored to describe, makes the rake all solid; the two steel springs give way

for the revolution of the rake, and instantly springing back to their place and holding the teeth firmly until you let them loose again by raising the handles of the rake.

These springs can be put on any rake, by shaving off the lower end that rests on the rake-teeth and screwing on these steel springs. The expense will not be over fifty cents. A. D. BROWN.

Any person who uses the revolving rake, as now constructed, will understand it in a few minutes by comparing this description with his rake, while it is in operation. As usually made, the handles are made to act as springs, springing nearer together as the rake revolves and passes the sloping wood pins attached to their forward ends. The improvement of our correspondent supersedes the spring of the handles, by attaching steel springs at their forward end. The figure of the revolving rake given on p. 122 of vol xiv, of the COUNTRY GENTLEMAN, does not represent this attachment, that figure having been drawn upon before this modern improvement was introduced, but all may be easily understood by examining any rake of present construction.

[For the Country Gentleman and Cultivator.]

Visit to the Society of Shakers, Canterbury, N. H.

THEIR NEWLY ERECTED BARN, FARM CULTURE, STOCK, GARDENS, ETC.—STATE OF THE CROPS IN THAT PART OF NEW-HAMPSHIRE.

EDS. CO. GENT.—On the 28th of June I visited the Society of Shakers in Canterbury. Their village is some 15 miles north of Concord, and nine east of the Merrimac river. They own about 2,500 acres of land, lying in nearly a square body. The society is composed of three families. The north family has a population of between 50 and 60; the middle family numbers over 80, and the south has about 150—there being about 300 in all.

The south family own about 1,700 acres of land, 600 of which is improved, the balance in pasture, wood, timber, &c. The large and beautiful village is located upon an extensive ridge of land, and can be distinctly seen from a distance of more than twenty miles, from various points of the surrounding country. The dwelling houses are large, substantially built, and finished in the most thorough manner, with every convenience for saving and economiz. ing labor, and are kept with the most scrupulous neatness. Several of the houses are of brick, three stories high, besides the basements. They have numerous workshops and other buildings for the manufacture of a great variety of wooden wares, brooms, &c., and for the drying and preparation of medicinal and other herbs and roots, and the manufacturing of medicines of various sorts, all of which are put up in the neatest manner, and without adulteration; whoever purchases the unbroken packages as they come from the hands of the Shakers, may rest assured they are what they purport to be.

A large portion of their cultivated land (in this my remarks will apply wholly to the large or south family,) is of rather a heavy, moist, strong soil, and is not so well adapted to the growth of Indian corn as to that of the hay crop. The production of hay seems to be the great object at which they aim in their farm culture. They turn over sward land in the autumn—following season plant with potatoes; next, in corn, without manure,—corn with them being a secondary object. Two years' cultivation eradicates weeds, grasses, &c., and leaves the ground in a situation to produce heavy crops of clean grasses. In stocking down to grass, they use barley in preference to oats or wheat. In the spring, before plowing for the barley, they apply from 50 to 75 cart-loads of manure from the barn cellar; a large crop of barley follows, succeeded in after years by larger crops of hay—for the two or more years after being laid down to grass, two heavy crops are annually mown. In my ride to Canterbury, some twenty miles, I saw hundreds of acres of grass fields, that will yield most meager products. But it is a rich treat for one to cast his eyes over the extensive and luxuriant mowing fields of the United Brethren at Canterbury. They had already secured a large amount of hay, being obliged to cut it thus early upon account of its being badly lodged. Their extensive grounds, devoted to the cultivation of almost every kind of garden vegetable and esculent for family use, and for that of medicinal herbs and roots, in point of clean and careful culture, and straightness of rows, would compete successfully, if placed by the side of Chinese or Flemish garden culture.

They cultivate fruit extensively, having one apple orchard of twenty-five acres, and large numbers of pear trees, and an abundance of strawberries and other small fruits and berries, as also flowers in great variety and profusion; and we doubt not these are fully appreciated by the kind hearted and modestly attired sisters of the fraternity.

One of the more recently attractive matters connected with this family, is their large, new and expensive barn,* the main body of which is 200 feet in length, and 45 in width, with a projection at each end of 25 feet long and about 20 wide, thus making the whole length about 250 feet. There is a handsome walled basement or cellar of the same size of the main part of the barn. From the sills to the eaves 34 feet. There are three floors running the entire length of the main buildings, the hay being carted into the barn on the upper floor, so that most of it is "pitched down instead of up." The floors, partitions and ceilings are all planed and finished off, as nice as a dwelling house. There are two hovels extending the whole length of the barn, the eastern divisions of which are for milch cows, with slip stanchions for tying up twenty-three cows in each. The cows have been so trained that they pass into the hovels and take their places with the regularity of well drilled soldiers. The name of each cow is printed on slips of paper, in large letters, and tacked on the joist overhead. Like the "world's people," they select fanciful names for their cows, such as Tamarind, Flora, *Crinoline*, &c. By a very simple arrangement, the turning of a short lever, fastens or unloosens the heads of all the cows in "the twinkling of an eye." The cows are milked at about six o'clock in the morning, and between four and five in the afternoon. They are in the pasture night and day, except while being milked. The cows are of mixed and various breeds, such as Durham, Devon, Ayrshire and 'native,' and the various crosses resulting from a mingling of these several bloods. They have five yoke of work oxen, averaging over seven feet in girth, besides large numbers of young cattle, sheep and superb horses; but they do not go the "whole hog" in pork raising—not so much as keeping a pig. In fact they neither eat pork, ham or lard. The waste matters from the kitchen, tables, &c., are in part fed to their fowls, the ballance goes into the compost heap. The skim milk is made into cheese, both Dutch and pressed. The whey from the cheese vat, (and there is a good deal comes from the daily making of two 50 or 60 pound cheeses,) passes off through sewers, and irrigates their grass lands. It would gladden the heart of Mr. Mechi to witness the results of irrigating grass lands with whey.

But to go back to their barn. The roof is nearly flat, double boarded; then covered with three layers of stout sheathing paper, saturated with coal tar, upon which is spread a thick layer of coal tar and screened gravel. The sides and ends of this large barn—(and two others to be described,) are shingled with good pine shingles of 16 inches in length, being laid but four inches to the weather. From the center of the large barn, on the south side, extends a two story building 100 feet in length by 27 feet in width. The loft is for the storage of hay, grain, straw, &c. The lower portion is divided into several rooms for calf-pens, store-room, hospital for sick animals, &c., and a well finished room for the herdsman. The roof of this, as well as that of the sheep barn, now being built, is nearly flat, covered with tar, gravel, &c. The sheep barn is 108 by 43, three stories high. The drive-way, for the cartage of hay is 17 feet wide, the floor of which is level with the girths; two loads of hay can be driven in abreast;

* Costing $20,000.

and at the south end it is wide enough to turn round with the cart, which can be driven out instead of "backing out." The ends of the large barn are so graded that the teams pass in at one end and out at the other. They intend putting up a large shed extending from the southwest corner of the barn—as does the sheep barn from the southeast—running south. The barn-yards will be separated in the middle by the 100 by 27 feet building, and screened from winds by the sheep barn and building yet to be erected. The yards will be about 100 feet square, abundantly supplied with water.

The Canterbury and Enfield Society of Shakers own about 700 acres of "Genesee Flats," in Mount Morris, N. Y., where they raise largely of broom and Indian corn. Last year, they had at the Mount Morris farm 300 acres in broom corn and 175 in Indian corn. In 1858, they had 75 acres in corn which yielded 65 bushels per acre. They can raise and freight this corn to New-Hampshire, at a cheaper rate than they can grow or purchase it there. So of the broom corn. They also have eight acres of intervale land on the west bank of the Merrimac river, at Concord. This is mostly used in the production of medicinal roots, herbs, &c., of which their sales amount to over $3,000 annually.

With the supply of labor always at command, their farming operations are performed at the right time and in the best manner I was at their place a few years since, (before the introduction of mowing machines and hay caps,) just as they had finished their haying. They estimated their hay that year at 150 tons, every clip of which was cut with the scythe, and every load of it stored in the barn in less than three weeks. and not a load of it was injured by rain.

With the mechanical skill and ingenuity possessed by some of the brethren, and the ample pecuniary means at their command, they seem to lack nothing that will serve to lessen the labor and toil of human muscle and nerve. They have invented and patented, (Jan., 1858,) unquestionably the best and most efficient washing machine for large establishments, that has ever been put to a practical test. Though but recently brought into public notice, they are extensively used in great numbers of our hospitals, asylums, and largest class hotels, and they give the utmost satisfaction, as the "statements and commendations" of numerous letters and certificates from many of the most prominent hotel keepers and others, fully testify. They are not designed for common family use, but for that of large establishments, being propelled by steam power. They have already disposed of over eight thousand dollars worth—being in use in various cities, from the Insane Asylum in New-Hampshire to Willard's Hotel in Washington, D. C., and from the Revere House in Boston to the Tremont in Chicago.

I attended one of their evening meetings. Of the religious belief and mode of worship, and domestic arrangements of these professing christians, it comes not within my province to judge them. In pursuing the course they do in these matters, they but exercise their constitutional rights, and worship God according to the dictates of conscience, and no one has the right in an authoritative manner, to say unto them "why do ye so."

There are many other interesting and useful facts connected with the labors and practices of these industrious, charitable and peaceable citizens, that are well worthy of being "put in print." But the length of this precludes any farther remarks respecting them at this time, for I wish to say something in regard to the agricultural prospects of the territory through which I travelled, going by one route and returning by another—corn, potatoes and beans, generally, appearing unusually well for this early season of the year—so of the growing oats. I saw a large number of fields of winter wheat, all of which was looking most promising, though some pieces were injured to some extent by winter-kill. The midge recently made its appearance, but most of the winter wheat has "got the start of the insect." Many fields of spring sown wheat are just heading out, and such probably will suffer badly by the ravages of the insect. In the aggregate I saw a large amount of winter rye, which is extensively grown on the light sandy soils bordering the Contoocook, Blackwater and Warner rivers, tributaries of the Merrimac. These several streams pass into the Merrimac a few miles north of Concord. Apples, pears, plums and other fruits now promise an abundant crop. Insects appear to be much less numerous than for several years past, especially the early caterpillar and curculio.

I saw numerous fields of fine clover in full bloom, much of it ready for the scythe—nearly or quite all of which appeared to be the medium or western variety, which comes forward too early for "timothy and red-top grass." Would it not be well for our farmers to sow at least a part of their grounds with the large northern variety. On good land it yields a very much larger crop, and coming into blossom later, it is fit to cut at the same time of cutting timothy and red-top. If mown at the "right time," and properly made and housed, cattle, sheep and horses will eat it as readily and clean as they will the smaller varieties. From its longer and larger root and top, it is far preferable for plowing in for green manuring to the southern or western varieties.

A large portion of the old mowing fields will yield but a very light clip of grass this year—perhaps there will be a falling off of the hay crop in this section of 25 per cent., compared with that of the past three years.

A few more words about barns. The farmers in this region of country, within a very few years past, have a real mania for building number-one barns. In my jaunt I saw scores of them—built within the past five years. They are generally from 80 to 100 feet in length, by 40 or more feet in width, all of which have cellars the size of the barn. They are "finished off" in the most thorough manner. Some are battened; others have the sides and ends shingled; others are clapboarded. All well supplied with light from glass windows, and painted. Many of them have tastefully finished ventilators upon the top of the roof or ridge.

By the way, when describing the Shaker barn, I forgot to notice the three large ventilators (with their Venetian blinds) upon the large barn, which carry the warm foul air from the hovels, &c., to the roof. There are also six or eight large wooden boxes or pipes from the cellar through the roof, for conveying the heated foul air of the cellar above the roof.

Warm, comfortable hovels for cattle are all very well, but for their most perfect health and thrift, fresh, pure air is also quite as necessary. Therefore, in the construction of cattle barns and stables, provision should be made for suitable and adequate ventilation. It is a sanitory measure that should not be overlooked, more especially in these times of *Pleuro-Pneumonia*. L. BARTLETT.

Warner, N. H., June 30, 1860.

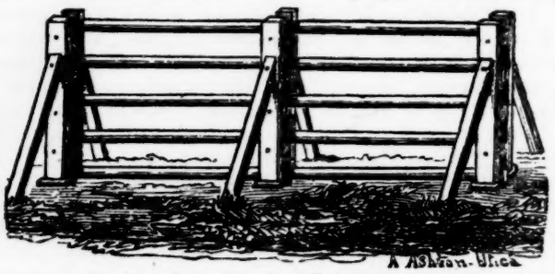
[For the Cultivator and Country Gentleman.]

HORT. EXHIBITION AT SKANEATELES.

Saturday, 23d of June, the Farmers' Club of Skaneateles held their first exhibition of fruits and vegetables. The show was good; finer fruit ought not to be desired, and we think the lover of rhubarb should feel satisfied. The leaf of one measured 3 feet 7¼ inches in diameter, the leaf stalk over 2 inches diameter and 2 feet 2 inches long. The strawberries were beautiful. Fifty-three entries were made, sixteen of which were for strawberries. The Wilson's Albany Seedling bore the bell, but I consider McAvoy of much finer flavor. The bouquets were beautiful. Miss E. Snook presented 21 varieties of Pansies, mostly seedlings; they were superb. The flowers as a whole were good and well arranged. On Saturday, the 14th inst., we have our second show. Your presence would add to the interest felt here, and with your own eyes you would be able to judge if we are what we consider ourselves to be, promoters of improvement. Aye, and it would enable you to see that some things are attained here in the growing of live fences, as well as in England and elsewhere S. M. Brown, at the close of the exhibition, made a few appropriate remarks. W. M. BEAUCHAMP.

NASH'S IMPROVED FARM FENCE.

The accompanying illustration represents a section of straight fence, recently invented by E. Nash, Auburn, N. Y. It may be built of rails or of boards. The upright pieces are made of boards about four feet long and six inches wide. The ends of the rails are flattened to a uniform thickness, and two battens or uprights are nailed to



each panel, when they are set on flat stones, as represented in the illustration, and braced with a brace on each side, which are set firmly in the ground with a pick or spade, and the upper ends beveled off and nailed or bolted to the uprights. Two small stakes may be driven on each side of the bottom rail to keep it from being moved sideways. It may be erected on rolling land or up and down slopes, as well as on level ground. It may be used for hurdles, or for fencing stacks, or for making pens for stock. The only portion liable to rapid decay is the ends of the braces. The foot of the braces need not be more than twenty inches from the blocks.

The *cost* of such fence per lineal rod will depend on the value of the materials used, in the locality where it is erected, which any one can compute.

When it is made of boards, the panels may be made in the workshop in the winter or at any time.

It makes a very *permanent* fence when the braces are firmly set; and the frost of winter will not affect it more than an ordinary rail fence. It has been well tested during the past season, and I have applied the principle to some of my board fence; and I do not hesitate to pronounce it the most *permanent surface* fence that I have ever met with. S. Edwards Todd.

[For the Country Gentleman and Cultivator.]

WINTER BARLEY.

Some years ago it was thought that the coldness of the winter in Western New-York would prove a bar against the successful cultivation of winter barley. The same idea was also held in England, although the winter there is comparatively mild.

But this theory has proved to be erroneous, and winter barley is now extensively grown in England, in some counties it having become almost as frequently grown as winter wheat. It has also been found that barley raised from seed grown in the south of England succeeds better in the Northern counties than that grown from seed matured in the colder temperature of the north. It ripens earlier and gives a more certain crop.

It having been demonstrated that barley can be successfully grown in Great Britain as a winter or autumn sown crop, it would be well for us to endeavor to do the same for it here.

I have no doubt but that it would succeed well anywhere in the United States south of the 42d degree of north latitude. North of this it would perhaps be too hazardous a crop, although it has been successfully grown in Canada, especially in the peninsula lying between lakes Ontario and Huron, and along the northern shores of lake Ontario. I saw some winter barley in full ear early in June, which had been grown near Ottawa, C. W. Most of that which I observed is already being harvested, one field near this city being cut and ready to go into the barn on the 7th of July.

Winter barley has been cultivated for some few years at the west, especially in Indiana and Ohio, and in the Chicago market reports will be found quoted six to ten cents per bushel higher than spring barley. In New-York it has as yet been but little cultivated, but wherever it has been tried it has proved a successful and remunerative crop when properly attended to, and its culture is extending.

The advantages of growing winter over spring barley are: 1st. The farmer has more time to prepare his land get it into good tilth in autumn than spring, when a multiplicity of work comes on him at once.

2d. He is less dependent on the weather, which is generally such in autumn as will allow of almost any soil being worked to better advantage than in spring.

3d. Less seed is required, as it will tiller out very considerably, especially when sown early.

4th. It blossoms and ripens earlier even than winter wheat, and will thus more easily escape the ravages of the wheat midge, which has recently shown a disposition to attack and commit extensive havoc in spring barley.

5th. It is preferred by the brewers, who will give from 10 to 15 per cent more for it.

The ground intended for winter barley requires much the same preparation as for wheat, and it will amply repay any extra care bestowed upon it. Dry loams are most suitable for it, and the land should be ridged so as to carry off all surface water. The surface soil is better to be made loose and friable, as the roots are short and spread out near the surface, and it is found desirable to encourage as much growth of root as possible before the soil freezes up. The main point is to have the soil rich, well drained, and thoroughly pulverized. The time for sowing the seed is the last of September or first week in October, if sown earlier it is apt to get too heavy a top, and become smothered in winter, should the snow be heavy and lie long. Two bushels per acre is little enough to sow. If drilled in early, less might do; and everything having been properly attended to, forty to sixty bushels per acre may reasonably be expected as a return for the labor and trouble bestowed on this crop.

Hamilton, C. W. John Mackelcan, Jr.

TURNIPS SOWN AMONG CORN.

In some recent notes from Dutchess Co., we alluded to the practice now becoming quite prevalent there, of putting turnips in between the rows of corn. A Berks Co., (Pa.) correspondent of the Germantown Telegraph says:

The practice of sowing turnips among Indian corn, at the the last hoeing, and especially where the latter has been thinned by worms or other insects, is one which cannot be too urgently recommended. The turnip is a vegetable which requires less assistance from solar light during the incipient stages of its development, than almost any plant in the whole catalogue of edibles; consequently, it is but slightly injured by the foliage of the corn plants, or the closeness of the atmosphere thus created. After the corn crop is harvested, and before the advent of frost, there will be ample time for them to root, especially if the soil be well cultivated. Burnt lands, in which the natural vegetative powers of the soil are augmented by the alkaline principles of the ashes, are very favorable to the cultivation of turnips; and when they are sowed among corn on such, they almost invariably produce a lucrative crop. Hundreds of bushels of excellent turnips may frequently be grown in this way without any appreciable diminution of the corn crop. "Economy is wealth," says the adage, and it is certain no one can practice it long without increasing to some extent his means for future operations and enterprises. In this business of producing cheap crops in substitution for the more expensive cereals, we gain several important advantages, among which may be mentioned as not the least prominent, the saving of time, and the realization of a lucrative yield of produce from land prepared for another species of roots or grain. The ravages of insects often prove fatal to many vegetables—especially to Indian corn; and when this happens, unless the vacated land can be filled with some crop of later growth, it must remain, either in part or wholly idle.

Again, the turnip bears late sowing so well that it may be grown on fields from which early vegetables have been taken; it succeeds well after a crop of peas, beans, &c.

Bone manure, wood ashes, lime and poudrette are all excellent articles to be used in the cultivation of turnips. Ground and crushed bones, and bones dissolved in sulphuric acid—itself possessing powerful stimulant and manurial pro-

perties, makes an admirable dressing. Gypsum also, is applied with success, both before and after planting. Green and fermented manures should never be used on this crop.

THE TORNADO IN IOWA.

There are many very curious circumstances connected with that wind. A friend of mine has visited its track, and has given me these facts.

It has generally been said to have been about one quarter of a mile wide. It did not vary ten rods from three-quarters of a mile, neither did it vary much in width for many miles. Precisely in the center, a space of about 100 feet, the effect was much more severe than the rest of the space; and in this center all the trees and timber lay north and south, while at the south side the things were carried east, and at the north side west; and yet there was much loose materials fell hilter skilter on the top of the first prostration. This rotary motion then, of course, was from west to east on the south side, and from east to west on the north side.

The crops are not destroyed along the track of the tornado. It was the 3d of June; wheat was not jointed, and although it was swept off, leaving only the root in the ground, it came up again, and now stands at the edge of the track about eight inches lower than that outside, and green and late, supposed to harvest over half as much as the very heavy crops in that region. Corn also came up and looks quite well.

Along this track were strewn fragments of household furniture, clothing, family utensils, buildings, fences, timber, and carcasses of all kinds of animals; and most of all these things were besmeared with mud and dirt, for the wind took up quite a quantity of dust and dirt, which was well moistened in the clouds, and thoroughly stirred into mud. SUEL FOSTER. *Muscatine, Iowa.*

[For the Country Gentleman and Cultivator.]

IMPROVING TOO LARGE A FARM.

MESSRS. EDITORS—In the days of my boyhood, about fifty years ago, I was acquainted with three good farmers of olden times, each owning about 130 acres adjoining on the same road, lying along about a mile. The land being then comparatively new and productive, each of these men became independent and reared a large family, and sent them into the world well to live. About fifteen years ago, a young man of my acquaintance bought one of these farms, and moved into an old house that had stood there more than 60 years. But he found the farm so unproductive that he could not live upon it. So he bought the second farm, but he could live no better, and finally he bought the third, making him about 500 acres of *very good* and yet very *unproductive* land. Now he is just beginning to learn that the more he has of such land, the worse he is off. But what ails the land? It was naturally productive, and being porous when new it was not too wet, nor was it too stony even. But from long use and age it has become very compact, and is now wet and cold, and of course *unproductive.*

His whole farm, both meadow and pasture land, is being overrun with every variety of foul stuff. His whole farm lies facing to the west. Nearly every acre of the farm must be underdrained before it can be made productive. But the owner can never do that. First, for the want of a disposition to do it; and secondly, for want of means. His whole capital is invested in unproductive land. If he would sell 300 acres of his land, and with the means prepare 200 acres to live on, he could make money, become independent, live like a freeman, and, what is most important of all, he could *educate* his *children right.*

But what I am coming to is the influence such a course of farming and of life has upon his children in giving an early direction to their future life. He is rearing a young family of boys and girls. But his boys will never become farmers, nor will his daughters ever *marry* farmers. They will live old maids first. There is not a single thing connected with the life of that growing family calculated to make them happy upon the farm. There is nothing before them but a life of slavery, with no present pleasures to alleviate. The old house stands close to the road, with not one foot to adorn with shrubbery or flowers, and if there were, they have no time to improve it, for from morning until noon, and from noon until night, all is *labor, labor, labor.*

Now when those boys shall have grown up and begin to inquire for some plan to escape the slavery to which such a system of labor has doomed them, 'Columella' will say they have an *aversion* to labor, an aversion produced by *high mental culture.* Now the same advice that I gave to that man I would give to all in like circumstances. Sell at least 300 acres of your land, and then fit the other 200 acres to live on. Select 10 acres and underdrain it to begin with. Then, after applying to it all the manure of a single year, with the plow, the cultivator and the harrow, prepare it for laying down to grass. Then, the next year, another ten acres, and so on for ten years. At the end of ten years, or fifteen at the most, his whole farm would produce more than 1000 acres would in the present condition of his land. Under such examples and influences, his boys would become *farmers* and his girls *farmers' wives.*

Waverly, N. Y. J. L. EDGERTON.

[For the Country Gentleman and Cultivator.]

GINGER BEER.

I will give you my way of making small beer that is the right kind of beer, in answer to an inquiry by A Subscriber.

Take 8 gallons of warm water and 1 gallon of New-Orleans molasses, and a small handful of hops, and boil them in a gallon and a half of water, and strain it in with the other warm water. Then take two large tablespoonfuls of good ginger and put it in and mix it right well, and then put in two tablespoonfuls of good cream tartar. Next put in 1¼ gallons of good yeast, and mix it all well, and let it stand for six or eight hours, or rather till it has worked a good scum over the top. Take a clean cloth and wash it in warm water, and wring the water out and lay it in a culender and strain carefully; bottle and cork and tie up so that the strings will make a cross on the top of the cork. Set the bottles out in the hot sun for two hours, and then put them in a good cold cellar or spring house and let it get one day old, and then you will have good beer.

Skim before you strain; also, before you put the ginger and molasses, and the cream tartar and yeast in your water, make it a little cool, a little more than milk warm, but no warmer or else it will kill your ingredients. G. GEDHART. *Indiana.*

APPLES FOR PORK MAKING.—A pithy writer in the Genesee Farmer remarks on this subject as follows: "For swine, nothing equals an *apple-pie*, either for relish or for fattening power. The pig is not very dainty about his pie, however. If you merely cook the apples and stir in a little *bran*, he won't refuse the dish; substitute shorts, or corn and cob-meal, or ground oats or buckwheat, and it will suit his palate and pile on the fat amazingly. And for *finishing* up a piece of pork, an apple pudding thickened with good corn meal, is as far ahead of hard corn as the corn is of raw pumpkins. Pork made with apple is sweeter, and quite as free from *shrinking* as the cornsfed

WHITEWOOD HONEY.—The Ohio Farmer remarks that the Whitewood or Tulip trees are covered unusually with blossoms this season, and adds what had never attracted our notice, that the bees gather a rich harvest of honey from this source, leaving while they last almost untouched the flowers of the white clover. It is a splendid tree, not only when in bloom, but through the entire summer season.

COOKED FOOD FOR HOGS.—An experiment related in the Working Farmer resulted as follows:—"Mr. Mason of Somerville, N. J., found that by using cooked corn meal, from the middle of April to the first of December, he increased the weight of two pigs from about 40 to 602 lbs., being a gain of one and quarter pounds per day, and that the entire cost of the pork was about four cents per pound."

FOR TAKING OUT IRON RUST AND YELLOW STAINS.—Dip the articles in a strong solution of Tartaric Acid, and lay them exposed to the sun.—*Exchange.*

Cutting Back Trees when Transplanted.

This practice, now generally adopted by the most successful cultivators, and founded partly on the principle that mutilated and greatly reduced roots cannot supply a full amount of nourishment to a great multitude of buds, is objected to by some of our correspondents. Having adopted the practice for twenty years, and had many opportunities of comparing the results of cutting back with those of planting the tree with the top entire, we have felt no hesitation in recommending it for general adoption—the only exceptions perhaps being those trees which have acquired some age, or have become enfeebled or stunted in growth before removal. In such instances a severe cutting back may not possibly always be advisable. It is better, however, to set out none but young and vigorous trees.

Much may be said by way of theorizing, but we prefer testing this question simply by experiment; and where this mode of reaching truth has been fully adopted, in connection with good trees and good culture, we have never known a cultivator who has not been convinced of the decided advantages of the practice. Having made a few experiments in this way the present year, in order to exhibit the results, we shall now merely state what these results are up to the present time.

Four two-year cherry trees, each about six feet high, were set out, three with entire tops, and one with two-thirds of each one year shoot cut off. The three unpruned trees have expanded their leaves, but none have made a new shoot half an inch long. The pruned tree is covered with vigorous shoots about two inches long, now growing rapidly. The contrast will no doubt be much greater in a few weeks more.

Three Mahaleb trees, of three years' growth, and about six feet high, were set out. On two of them the shoots were mostly left untouched. These are scantily furnished with small leaves, and none have grown half an inch, except where one of them had four shoots cut back; these four shoots have each several new shoots from one to two inches long. The third Mahaleb had each last year's growth cut back two-thirds; it is now covered with young growing shoots about one inch or more in length.

Of six Breda apricot trees, two years from the bud, and about seven feet high, five were cut back, and one left untouched. In order to avoid vague estimate or guess work, we measured and counted the shoots they have each made up to the present time. On the five cut trees the following are the results:—

1	tree has	18	new shoots,	from 6 to 13	inches long.
1	"	10	"	" 6 to 9	"
1	"	9	"	" 6 to 7	"
1	"	13	"	" 6 to 13	"
1	"	21	"	" 6 to 21	"

besides which all have many other shoots from three to six inches.

The remaining tree, left uncut, has seven shoots one to two inches long, none are over two inches. The amount of foliage it contains is certainly not over one-twentieth part that on either of the five pruned trees; *hence the intention which some have of obtaining more foliage by leaving the trees unpruned, results in failure and defeats its own end.*

The worst part of the unfavorable result on the unpruned trees has not yet come, for the trees having once become thoroughly stunted, will require years to restore them.

☞ The Rensselaer Co. Ag. Society has commenced the publication of a monthly "Journal."

[For the Country Gentleman and Cultivator.]

CROPS ON DRAINED LAND.

Messrs Editors—I have not seen any statement of crops grown on lands that the New-York State Ag. Society awarded their premium on draining for the year 1858, and to let the people know how I have succeeded, will write you a short account of the same.

About 12 acres, as shown by diagram on page 230 of that Society's Transactions for 1858, was plowed and planted to corn about the 16th of May. The same was hoed from 6th to 11th of June, looking finely. On 12th of June in the morning, the frost had cut all clean—beyond any hope of recovery. That day being the Sabbath, and Monday a rainy day, we commenced plowing again the 14th, continuing the 15th and 16th. The result, with the coldest season I ever knew, was the largest growth of corn ever seen in these parts, not fully ripened of course. The corn was acknowledged by all to grow the fastest that they ever saw, and the mystery was what made it grow so; as the year before, all said it was folly to try to drain that piece, and much more so to try to raise corn there.

I harvested 100 bushels ears per acre, which I know is not a heavy crop, yet considering the frost and the season think it highly remunerative, as the fodder was enormous, and as hay was scarce, was valuable. I did not weigh but a part of the dried fodder, but think it safe to say five tons per acre, which would have sold for $7 per ton, which would be $35 for fodder, and the corn 50 bushels at 80 cents, would be $40 more, making a sum total of $75 per acre for the produce. The labor was nearly double, as all was planted twice and hoed three times. This year the same piece is sown to oats, and promises an abundant crop. A neighbor said to me yesterday, the crops on that field was a better argument than all the talking I or any other man could do for a month together.

Tell the people to *drain*—to *drain well*, not less than three feet deep, with wood, stone, or tile, as each advocate, but be sure *to do it*, for it will pay *if well done*. More anon. Jonathan Talcott. *Rome, June* 27, 1860.

Preserving Green Corn for Winter Use.

Messrs. Editors—I give you a recipe for preserving green corn for winter.

Cut the corn off the cob, and put it in a stone jar, with a handful salt to a pint of corn. When the jar is full, put a weight on it. When you wish to use it, remove a little of the top, and wash and soak over night. G. K.

Waynesborough, Va.

Red Ants---How to Get Rid of Them.

Messrs. Editors—Please tell "A Distressed Housekeeper," that she can get rid of her ants by placing camphor about the shelves where they are found. A neighbor of mine, in whose word I can place the utmost confidence, says—take spirits of camphor and sop it on the shelf, making a perfect ring, and place the ants inside of the ring and none of them can get out alive—it is sure death. He has tried it. Those out of the ring *will leave in the first train.* Will "A Distressed Housekeeper" try this, and report in The Cultivator. Joseph E. Phelps. *Worcester, Mass.*

RULES FOR PRUNING GRAPES.

The last number of Hovey's Magazine gives substantially the following general rules for grape pruning, after recommending grape-growers to be free in the use of the knife, followed by the remark that where one vine is pruned too severely, nine are not pruned enough:—

1st. No shoots should be nearer than one foot of each other.

2d. Prune back to within one eye of the old wood, every fall and spring, about one one-half of the annual shoots—the remaining eyes producing canes to be retained for bearing next year—when the old bearing wood is in turn to be cut out, to make room for new shoots.

3d. Disbud or rub off, as soon as they appear, all shoots not wanted as bearing wood.

Native Fruits and Errors of Opinion.

We never could perceive why a pear seed, containing within itself the germ of its future character, deposited in soil on one or the other side of the water, should come up and make a different tree on account of the place of its growth. For the same reason we cannot perceive why a native grown variety is necessarily better than one brought across the national line. It is true, that the *selected* native seedlings are as a general rule better than others, being selected *because* they are found best in the particular region of their origin.

As an example,—take 100 seeds of the Bartlett pear. Plant 50 in England and 50 in New-York. Out of the seedlings, one is selected in England as best, and one in New-York. The English seedling will not prove so good in America as the other, nor the New-York seedling so good in England, simply because each has been chosen for its *adaptation* to the respective locality. But there is no doubt that of the remaining plants, there are as many in England that would be good in New-York as those growing here; or as many of the New-York plants that would be good in England as those growing there—could their place of growth be changed and the choice made accordingly.

These remarks have been suggested by a remark in Hovey's Magazine, from an intelligent and eminent correspondent, that pear trees as hardy as our forest trees, "can be expected only from native seedlings." Time will prove much in relation to the hardiness of varieties,—and in the meantime we will only remark that western cultivators assure us that the hardiest pear tree they have tested is the Flemish Beauty; and fruit raisers in Maine assert that the Urbaniste is the hardiest there—both European sorts.

[For the Country Gentleman and Cultivator.]

VALUABLE WASH FOR BUILDINGS.

I saw an inquiry in one of THE CULTIVATORS, a short time since, for a good whitewash, that would not wash off. I send you the following. More than three years ago I whitewashed my barn and outbuildings with it, and they look nearly as well as when put on. The recipe was originally taken from the National Intelligencer.

Take half a bushel of rock lime; slack it with boiling water; cover it during the process to keep in the steam. Strain the liquid through a fine sieve, and add to it a peck of salt, previously well dissolved in warm water; three pounds of ground rice, boiled to a thin paste and stirred in boiling hot; half a pound of powdered Spanish whiting, and a pound of clean glue, which has been previously dissolved by soaking it well and then hanging it over a slow fire, in a small kettle within a large one filled with water. Add five gallons of hot water to the mixture, stir it well, and let it stand a few days, covered from the dirt.

It should be put on right hot. For this purpose it can be kept in a kettle on a portable furnace. About a pint of this mixture will cover a square yard on the outside of a house, if properly applied. It answers as well as oil-paint for wood, brick or stone, and is cheaper. It retains its brilliancy for many years. There is nothing that will compare with it, either for inside or outside walls.

Coloring matter may be put in, and made of any shade you like. Spanish brown stirred in will make red pink, more or less deep according to the quantity. Yellow ochre stirred in makes yellow-wash, but chrome goes further and makes a color generally esteemed prettier. In all these cases the darkness of the shades of course is determined by the quantity of coloring used.

When walls have been badly smoked, and you wish to have them a clear white, it is well to squeeze indigo plentifully through a bag into the water you use, before it is stirred in the whole mixture. If a larger quantity than five gallons be wanted, the same proportion should be observed. E. F. AIKEN. *Grove Ranch, Cal.*

[For the Country Gentleman and Cultivator.]

A NOTE FROM VIRGINIA.

A two weeks' visit among the farmers in Fauquier, enables me to say that the season there is generally a fruitful one. Wheat will be quite an average crop; some planters, however, have nearly lost that crop by the cut-worm. I know of one instance where three hundred bushels of wheat sown will not return one hundred. Yet the average crop of the county is good and superior in quality. An intelligent farmer told me that he had examined the insect which was troubling his wheat, and thought our Hessian fly had got among it for the first time in his experience.

I introduced spring wheat there this season, and when I left it looked very promising; it has not been tried in that section for years, and if it should turn out as there is reason to anticipate, it will prove a great benefit, as it comes in *after* the cut worm has done its work.

Corn, oats, clover, rye, &c., never looked better. Tobacco paid so poorly last year that many planters have declined trying it this season; it is a crop requiring more labor than any other, yet there is some compensation in the fact, that contrary to the received opinion north, it makes a good preparation for wheat the succeeding year.

The mountain lands of Madison, which have been sold for almost nothing, are giving large crops of potatoes and grass, and if Northern seed corn was introduced there, would make a crop. Sheep are being extensively introduced there.

Can you tell me why it is that onions (which would be a valuable crop there,) cannot be raised from the seed, and that what they term "clove onions" are always used to produce them? I have supposed that the introduction of new seed might answer, instead of their "rare ripe" plan, but I am not a practical farmer. K.

AYRSHIRE PRIZE MILKERS.—It will be remembered that we noticed some weeks since, the Duke of Atholl's tender of certain Prizes for Milking Cows, to be awarded by the Ayrshire Agricultural Society. The trial formed a novel feature; eight cows competed, and they were kept together for five days, and carefully watched and milked. The following is a statement of the quantities of milk given by the cows belonging to the winning competitors:

	Greatest Milkings.	Average of ten milkings.	Per Centage of Cream.
1.	28 lb. 7 oz.	26 lb. 5 oz.	12
2.	26 10	24 7	9
3.	24 13	22 10	11
4.	24 12	12 1	15

☞ Mr. JEREMIAH NIVER of Stuyvesant, Columbia Co., is agent for Eddy's "Patent Protective Bee Hive." Mr. N.'s experience leads him to speak in high terms of the operation of this invention. He has written a little book on the subject, which we presume may be had by addressing him as above. Mr. Niver has also placed one of the Hives at this office, where it will remain some days on exhibition, and by way of sample of what it can accomplish, has left with us a box of new honey of first quality, weighing upwards of 10 lbs.

FARMING HILLY LAND.—Such land is apt to wash into guillies in heavy rains, especially if poor and shallow; the best way to prevent it, says a Hill Country farmer, is to make the ground deep and rich, and sow on grass seed in the hollows most exposed. "Make a sufficient quantity of the soil mellow to absorb all the rain that falls, and none will run off, carrying the soil with it." Deep plowing, sub-soiling and underdraining, will best accomplish this end.

HAY AND GRAIN RACKS.

A correspondent in Indiana has requested directions for constructing a rack or frame for placing on an ordinary farm wagon, to draw hay and grain upon. There are many modes of construction, variously known and adopted in different localities, and possessing various advantages and defects. Among them we have selected two already well known to many of our readers, but doubtless new to others, and which, on the whole, are, perhaps, as good as any that are used.

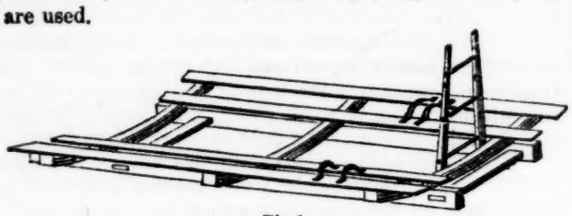


Fig 1.

Fig. 1 represents a strong frame, the only objection to which is its weight, and the consequent inconvenience of placing and removing it from the wagon. It consists, first, of a bottom frame, (forming the foundation or base,) just wide enough to fit within the stakes of the wagon, made of two side pieces 10 inches wide, two inches thick, and about 13 feet long; these are connected at the ends by cross pieces morticed through them. On this frame rest three curved cross timbers, about 4 inches square, and 6½ or 7 feet long—the curve may be about 6 inches, or enough for the boards that rest on them to clear the wheels—if the curve is less, the bottom frame must be wider. These timbers support two boards on each side, each board an inch thick and 6 inches wide, and about 13 feet long, or as long as the rack. Stiff, curved iron straps span from one board to the other over the forward wheels, to prevent the hay from resting on the tire. This frame or rack may be modified by making the bottom frame five or six inches wider, and using straight instead of curved cross timbers, but this will make it heavier, and the load will not rest so securely upon it.

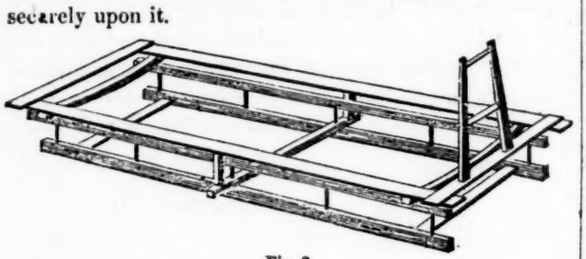
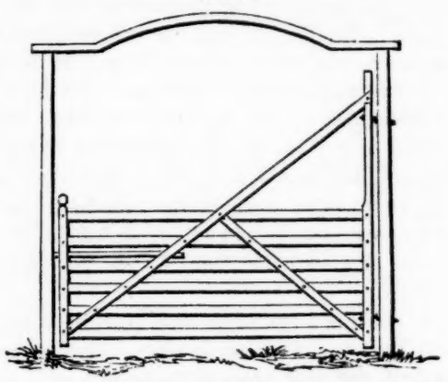


Fig. 2.

Fig. 2 exhibits a lighter and more perfect frame, but requiring more labor in construction. The eight upright pins or standards, connecting a light foundation frame with a lighter one above, renders the whole so manageable that it may be very easily placed upon or removed from the wagon. The cross timbers (consisting of only one at each end) need not be so much curved—a curvature of three inches is sufficient, and they will be large enough if 2½ by 4 inches; their length may be about 6¼ feet, or if the rack is large, 7 feet. The bottom frame may be made of 3 by 5 inch stuff, 12 feet 6 inches long, and the top frame 2 by 3 stuff. An inch board a foot wide goes all around the top, the extreme length of which is about 14 feet. In both these racks the bottom frame must be just wide enough to fit within the upright stakes of the wagon, which is usually about 3 feet 2 or 3 inches. The short ladder placed at the forward end, to prevent the load from falling forward, and to fasten the reins to during the operation of loading, should be about four feet high.

Another form of construction is first to make a foundation frame of side pieces about 2 by 8 inches, connected together by four cross bars morticed into them, nearly as already described, the cross bars being of white oak or other hard wood, into which oblique mortises are cut on each side, within the side pieces. These oblique mortises receive sloping side frames, which complete the rack—the feet of the side frames being thrust into the oblique mortises, and the frame resting against the top of the foundation frame. This rack is not so substantial as the preceding, but as the side frames are taken out and put in separately, one person may more easily place the whole on the wagon.



[For the Country Gentleman and Cultivator.]

A GOOD FARM GATE.

EDITORS. CO. GENTLEMAN—Annexed you will find a plan of a gate that was erected on the farm I now own, by my father, more than 30 years ago, which gate is still in good working order, except that the post of the gate into which the rails are morticed, is beginning to decay, and will have to be renewed; otherwise the gate is firm and good, never having sunk or swayed an inch either way.

The plan of the gate is similar to one already described in Co. GENT., but is much more substantial, and very little more expensive. The posts and cross piece at the top are locust. The posts are 11 feet high above ground, are 5 inches square at the top and 6 inches square at the ground; the cross piece is 4 by 5, and curved as represented, to make it (I suppose) more ornamental. The posts are set in the ground about 3 feet, and firmly fastened with stone. The rails in gate are—top rail 5½ inches wide; 2d, 5½; 3d and 4th, 6, and 5th or lower rail, 7 inches; upper space 7½ inches; 2d, 7½; 3d, 5, and lower space 4 inches. The railings are morticed into the post of the gate, and secured by a wooden pin; said post being 3 by 5 inches, and made 4 by 3 above gate as represented in drawing. The braces and pieces at the end of gate are made of railing, the braces being 5 inches wide, and the pieces at end of gate 6 inches wide—there are two pieces, one on each side at end of gate,) and are well secured—both braces and end pieces—to the rails of the gate by *rivets*, not *nails*.

I should say that the railings of which the gate is constructed, are only one inch thick by the widths above given. The long brace being dove-tailed as represented, and secured, prevents it from drawing out or giving way. The bolt for fastening and the plan of hanging are very simple, and in fact the whole gate is so easily constructed that any man that can use a saw and chisel, and bore a hole, can make and put one up.

There being no patent on this gate, and hoping it may be worthy a place in the Co. GENT., and that it may be of advantage to some of your numerous readers, I send it to you. JAMES M. KINKEAD.

ALBANY CO. AG. SOCIETY.—At a late meeting of the Managers of the Albany County Agricultural Society, it was resolved to hold the Seventh Annual Fair of the Society on the Washington Parade Ground on the 18th, 19th, 20th and 21st days of September next.

[For the Country Gentleman and Cultivator.]

BALLOON FRAMES---IVth Article.

It is gratifying to see so many favorable notices in your columns, endorsing the practicability, economy and general usefulness of the balloon frame, and with such practical suggestions and improvements as have been made by C. G. Taylor, of Rock Island, Ill., Suel Foster, of Muscatine, Iowa, and W. S. Hand, Milwaukee, Wis. Opinions from these gentlemen are opinions worth having, because they live in a section of country where the balloon frame is in the ascendancy, and they are also practically aware of all the merits and demerits of the old fashioned frame. We should like to have somebody take the other side of the question, and give some practical reasons why the balloon frame is not 40 per cent. cheaper, and not better adapted to the construction of wooden buildings than any other known style of frame. If the balloon frame has a weak spot, we should be glad to have it pointed out. As a matter of economy in architecture, it is worth the attention of all the building community; it will pay them to thoroughly investigate it; it will pay for the New-York State Agricultural Society, and for the Agricultural Societies of other States, to appoint a committee to examine and report its advantages, and its disadvantages if they can find any.

The balloon frame belongs to no one person; nobody claims it as an invention, and yet in the art of construction it is one of the most sensible improvements that has ever been made. It is safe to say that there is not a farm west of the great lakes but what can furnish an illustration of its success; the wooden buildings in Chicago, Milwaukee, Dubuque, St. Paul, San Francisco, and other cities of the west and far west, with scarcely a single exception, are built with balloon frames. The depots, freight houses, and other wooden buildings of the Illinois Central, Chicago and Galena, Milwaukee and Mississippi, and other western railroads are constructed in the same manner. We know of a block of five buildings in Chicago, used as stores, total dimensions of which are 125 feet front, by 100 feet deep, three stories high, that perfectly fulfils all requirements for storage and business, and has done so for years. A hotel at Sparta, Monroe Co., Wisconsin, above 40 feet square, has the studding spliced three times, and the upper room is used as a ball room, the most severe test that can be applied to it, and when dancing times are over, it is used as the "school section," a prominent feature in every western hotel. We have seen farm houses and town houses in Illinois, Wisconsin, Iowa and Minnesota, built with balloon frames, and nowise inferior in size, comfort, convenience, style and finish to the best examples in the State of New-York.

The only instance of a balloon frame having moved from its foundation, that has come to our knowledge during eight years practical experience in our profession at the west, was some years ago, at Oshkosh, Fond du Lac county, Wisconsin. A tornado, about 3 a. m., lifted and moved entire about 30 or 40 feet, a balloon house, and doing no further damage than waking up the family; at the same time an old fashioned frame in the immediate vicinity was uttterly demolished. There is the same difference between a balloon frame and the mortice and tenon timber frame, that there is between a bushel basket and a dry goods box; drop them from a house top, and you can soon find out which will stand the most hard knocks. The name of "Basket Frame" would convey a better impression, but the name "Balloon" has long ago outlived the derision which suggested it.

The union of concrete with a wooden frame, strikes us very favorably; if a suggestion would be in order, we would use the balloon frame for this purpose. The studding we would rip from the floor plank, 1¼ inches thick, and place them three or four feet apart. It has been demonstrated that a concrete building is sufficiently strong without any frame, but the introduction of a frame obviates all other objections that we know of to concrete alone. The balloon frame with concrete, admits of ties in every direction, makes the whole wall stiffer and stronger, and gives the floor joists a better bearing; a universal brace to a piece of timber, makes a great difference in its strength, and changes its capacity from hundred weights to tons. A perfect familiarity with every known form of economy in the erection of buildings, warrants us in stating that we believe a union of concrete and the balloon frame to be within the line of the most rigid economy yet found in any other manner of building, and that a building put up in this manner would be cheaper, (inside finish excepted,) than the frame of a house constructed in the old style.

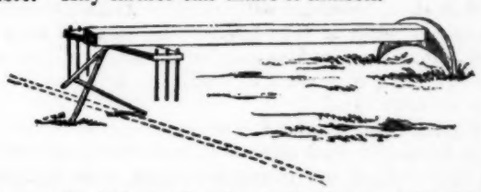
Any person contemplating the erection of a wooden building, would save money by investing fifty dollars in travelling expenses, to examine a balloon frame; a barn 20 by 40 has just been completed at Irvington, N. Y., for Joseph W. Hartley, Esq., and a number in the vicinity of Newark, N. J., both dwellings and barns. One gentleman informed me that he had put up a building some years ago, after reading an article on the subject by Solon Robinson; so well is he pleased with it, that he has built another in the same manner, and he estimates that he has saved between two and three hundred dollars by adopting the balloon frame.

In a future article we will illustrate the application of this frame to the largest class of barns.

GEO. E. WOODWARD,
Architect, Civil and Landscape Engineer, 29 Broadway, N. Y.

MOLE TRAP.

Having seen an inquiry some time since in the Co. GENT., about mole traps, I send you a description of one which we use in our market garden. It is cheap, efficient and durable. Any farmer can make it himself.



It consists of six teeth, nine inches long, made of ¼ inch wire, well sharpened at the points. These teeth are set into an inch plank, 9 inches long, and 3¼ inches wide—three teeth being set at each end. Nail this piece of plank containing the teeth to a 4 inch scantling, about 18 or 20 inches from the end. The scantling should be about 6 feet long.

On the opposite end of the scantling nail a board hollowed out on one edge, and rounded off on the other, with the convex side up. This is to hold the trap firmly to its place, and should be pressed into the ground when set.

Now make a set of common dead fall triggers, and your trap is complete.

Set your trap with the teeth immediately over the mole track. In the center, between the teeth, press down the track, and let the point of the long trigger rest on this pressed portion of the track. The mole throws the trap by rooting up the hard earth under the point of the long trigger. Having three teeth on each side, he is sure to be caught, coming either way. [The dotted lines in the figure show the position of the mole track.] M. D. BOWMAN.

[For the Country Gentleman and Cultivator].

Flax-Seed, Linseed Oil, and Oil Cake.

MESSRS. EDITORS—Your editorial "Notes from the Connecticut Valley," in Co. GENT. of June 21st, were exceedingly *interesting*, in consequence of having heard much of that section of country from neighbors who had formerly resided there, and also very *instructive*, as the farmers of Franklin county seem to be first-rate managers, and, as a natural consequence, prosperous and progressively improving COUNTRY GENTLEMEN. Success to them; and may their industry and ingenuity be extensively imitated by their brother farmers in other States!

Your "note" as to the composition of the feeding stuff used by Mr. ISAAC BARTON for his growing stock, and your subsequent remark connected therewith, as to the comparative value of flax-seed and oil cake, called to my remembrance some items of information as to these feeding materials and as to the use of linseed oil, which I intended to communicate to you and your readers some time ago. Though prevented while the information was yet fresh in my mind, the delay may yet prove rather an advantage than otherwise, as the statement and the remarks you have made in reference to Mr. Barton's employment of flax-seed will undoubtedly have awakened attention, and excited to inquiry in regard to the comparative advantages of the various modes of using flax-seed and its products—the oil and the cake.

A few weeks ago, then, I was informed by a gentleman who had been looking at the stock of some of the more celebrated breeders of cattle in Ohio, that he learned from two of those whose stock he had inspected that they had discontinued almost entirely the use of oil cake, and had substituted in place of it a mixture of ground grain with an addition thereto of a certain amount of linseed oil. Whether this change had been made in consequence of finding some, more or less, of the oil cake in market adulterated or of inferior quality, or with a view merely to economy, the price of oil being comparatively low, my informant had not inquired. But from whatever cause these breeders had been led to make the change from oil cake to a mixture of linseed oil with the meal of Indian corn and other grain, they stated, as the result of their experience, that the change was entirely satisfactory to them, and that they were sure that they could thus supply, for their cattle's use, as much oily and other nutritive matter as the *very best* cake ever contained, at a less cost than by purchasing the cake, while at the same time they escaped all risk of an inferior or fraudulent article, and could thus secure a choice as to what kind of grain or other feeding stuffs they should combine with the oil. At first, they said, cattle do not relish or take hold of the mixture of meal and oil, but after a few days coaxing and fixing of the mess in various ways, they seem to relish the mixture just as well as oil cake itself.

In England and Scotland, also, experiments have been tried in feeding linseed oil and linseed itself, the former being poured upon and mixed with chaff, bran and other mill feed, and the latter mixed and ground with grain, as is done by Mr. BARTON, or mixed with chaffed straw or other bulky food so as to secure thorough mastication. Sheep, as well as neat stock, have been fed with the oil in the manner just named, and the experiment is reported to have succeeded quite satisfactorily, in one instance so much so as to lead to a decided preference to the use of the oil in this way to that of oil cake in the usual way.

Taking it for granted, then, that linseed oil mixed with ground grain, as in the case of the Ohio breeders, or with bran, mill feed and cut straw, as in the experiments made in Great Britain, can be economically and successfully used in the place of oil cake, it seems highly probable that the use of the seed itself, either ground with other grain, as Mr. BARTON uses it, or crushed, or boiled, or added to other feed, as in the case mentioned in Co. GENT., April 21, 1859, would be found on trial a still better mode of availing oneself of the oily and other nutritive elements of this not yet duly appreciated feeding stuff. The use of the feed itself, rather than either the oil or the cake would secure the following and perhaps other advantages: Saving the expense of extracting the oil; guaranteeing the absence of all adulteration; making a more palatable mess than any fixed with oil, and greater economy. A. B. A.

SORE TEATS IN COWS.

To cure a wound in the teat of a cow, I would, if the opening is not very large and the discharge of milk from it abundant, take the following course: Keep the cow in the barn and the milk in the bag reduced by frequent milkings. Cauterise the edges and inside of the opening with a hot iron; then let the burn heal by granulation, (as of course it would do,) the contraction consequent upon healing by granulation will probably close the artificial opening. A. *Buffalo, N. Y.*

DIRECTIONS FOR MILKING

"L. T." says in the Ohio Cultivator, "That there are many good milkers who cannot tell others how the thing should be done." He evidently does not lack in the *telling* part, for we never saw better practical directions to milkers than his, which we copy below:

"Brush the udder and flank, handle the teats a little, and start the milk. Set the bucket a little forward and outward, the side towards the milker a little raised. Grasp the near front and off hind teat, or alternately, as near the end as possible, without milking on the hand, keeping the left arm in a position to protect the pail, if necessary. Place the first forefinger directly in the center of, not around the teat, and close the other fingers *successively* down upon the center. Avoid conversation, milk as rapidly as possible, and quit when done. Never milk only one teat at once, or use only the thumb and finger, unless unavoidable. If desired to save the strippings, wait ten or fifteen minutes, then take what has collected."

WHEN TO SKIM MILK.

A dairy-woman, in Western New-York, speaks in this emphatic tone as to the best time: She says that the right time to skim milk is "*just as the milk begins to sour in the bottom of the pans.* Then the cream is *all* at the surface, and should at once be removed—with as *little* of the milk as possible. If allowed to remain until the *acid* reaches the cream or to become *thick*, it diminishes the cream, and impairs it in quality. That housewife or dairymaid who thinks to obtain a greater quantity by allowing the milk to stand beyond that time, labors under a most egregious mistake. Any one who doubts this, has only to *try it* to prove the truth of this assertion. Milk should be looked to at least *three* times a day."

STRIPED BUGS.

The striped bugs—oh the rascals! The Co. GENT. of the 7th June, p. 367, copies from the N. E. Farmer, a remedy for these fellows—"turpentine, cotton batting and a split stick." I tried it without any success. Water would have been just as effectual. The next remedy that came to hand was "hen dung," pulverized and scattered on the hill around the vines. Now I have watered mine twice a week with liquid manure made of hen dung, as strong as it could be made, by putting it around the hill, but not directly on the vines. This I have done for the purpose of making them grow, which it has done, but has had no effect upon the *bugs*. I also tried kerosene in the same way the turpentine was to be used, with the same results—they seem to delight in perfumery, (for I take it, it is the odor that is to do the work of expulsion;) it may be, however, that our bugs are different from other people's bugs—their nasal organs may be depraved. One other thing we tried—it was pinching them back as they say of grape vines—this proved the most effectual of anything. The number that were destroyed in this way is astonishing. While upon bugs allow me to say, that I like the philosophy of the Long Island farmers, as described in the GENT. of June 28, p. 413. This looks as though it might work, and although attended with some labor, it is better than to try to lead them off by the nose—they are a nuisance any way. J. L. R. *Jefferson County, N. Y.*

MANURING THE WHEAT CROP.

In an article with this heading given about a year ago, the COUNTRY GENTLEMAN took occasion to urge upon its Central and Western New-York readers, who would again engage in wheat growing, the importance of especial applications of manure for that purpose. The lesson of another season's crop, studied with especial reference to this subject, induces us to recall the subject, that we may add some additional considerations in its favor, as well as indicate some very generally available resources of fertilizing material, especially on soils not otherwise so well adapted to this greatly prized and valuable cereal product.

Mr. HARRIS, in his Yale Lecture on "Wheat Growing in America," recently published in this journal, (Co. Gent., June 21–28, '60,) remarks that "in Western New-York manure is seldom applied directly to wheat; some say it is injurious." It was thought as stated in our former article, "to stimulate a heavy growth of straw at the expense of the grain, and by the rankness and succulency of the former, increasing the liability to lodge, and tending also to produce rust and mildew in the standing grain." This opinion is far less prevalent than formerly, and for two reasons: We have better learned the requirements of different soils as to manures, and the effect of different fertilizers on the wheat plant; and the early ripening varieties now sown are far less liable to be injuriously affected by manure than the later kinds formerly so popular. The present practice is fast conforming to the view expressed by Mr. H., "that on most farms the wheat would be very grateful for a little good, well-rotted manure, either plowed in or spread on the surface just before sowing."

"We are very likely," as stated a year ago, "to throw away our seed and labor, now-a-days, in sowing any but *rich*, warm, quick soils to wheat." We must get a large growth of healthy, early maturing plants, or the wheat midge will destroy the crop, in greater part at least. In order to succeed well on these rather light, but early ripening soils, "wheat," as the lecture remarks, "needs something to give it a start in the fall, and a little well-rotted manure, not plowed in deep," proves "very acceptable." It is found in practice that a loamy soil, in good heart, dressed with from ten to fifteen loads of composted manure per acre—the same mixed intimately and evenly with the surface soil—will give "that good start in the fall," which will enable our early varieties to come out "ahead of the midge," and produce profitable crops.

That manuring for the wheat crop is no new thing in Western New-York, we could readily show by reference to almost every statement of premium crops for the last fifteen years. For instance, in 1850, a Niagara county farmer harvested 63½ bushels per acre, after manuring his ground with well-rotted barn manure at the rate of twenty loads per acre, and adding a top-dressing of 40 bushels of lime, over the whole field of nearly seven acres. This is a remarkable product, but there are many going above forty bushels, a large share of them owing their bounteous yield to some course of manuring, either from the barn-yard or compost heap, or by plowing under clover or top-dressings of lime or leached ashes, these last in some instances stimulating a very large product of grain.

Our heavy soils, most natural to wheat *when underdrained*, will bear, and well repay moderate applications of manure. In most cases, however, the effect sought could be more economically reached by applying the manure to the land while in grass, to be plowed under for some other crop, or for wheat the succeeding year, yet when the soil needs something to start the wheat in the fall, a light surface dressing would be a most judicious application. On compact clays wanting largely in vegetable matter, a larger dressing would have an excellent mechanical, as well as manurial effect, though it might produce too heavy, and above all, a too late ripening growth of wheat, to prove secure against the midge and perhaps other casualties.

We promised to indicate some very generally available resources for manure, but have scarcely room or need to do so, if the reader will re-peruse our recent article on the "Manurial Resources of the Farm," (Co. GENT., June 14, '60,) where we spoke at some length on the general subject. Briefly, however, on a point or two.

Could we turn under a good growth of grass or clover, say a month before sowing on our wheat, and then properly reduce the surface soil for drilling in the seed, we should think the prospect good for a crop, though it would still be improved by some fertilizing application on the surface. We but here repeat an old authority on the subject: THAER, in his *Principles of Agriculture*, remarks that "the best and most successful way of obtaining good wheat crops, is to sow on broken-up clover land; and if on friable loam, after one single plowing." He would plow under the second growth of clover when eight or ten inches high, and a month before seeding, that it may have time to decompose and the ground become equalized. This, Mr. Harris allows may be a good practice on light soils, but—and we agree with him in the opinion—on heavy soils it would be better to summer fallow and apply the same clover after it had been fed to cattle or sheep. In this case a light dressing of good barn manure, well rotted, would be better than a heavy green manuring of clover, especially in its effect upon the product of grain.

On loamy soils needing lime, (as shown by the growth of sorrel, yellow dock, and the like,) we think very favorably of applying a muck and lime compost, well decomposed together as a preparation for the wheat crop. Muck that is already partially decomposed can soon be prepared for use. The process is as follows: Make a bed of muck a foot thick, of a size suitable to the amount to be composted. Over this spread a layer of fresh slaked lime at least one inch in thickness. Put on in the same way other layers of muck and lime, varying the thickness of the former according to the quantity of lime to be used. Some farmers of considerable experience use from six to eight per cent., others less than one-half the amount, according to the nature and acidity of the muck. The lime should be slaked in brine—using a bushel of salt dissolved in water to six bushels of lime. When the decomposition becomes active, which it will in a few weeks, the heap should be shoveled over and well mixed, and will very soon be ready for use. From twelve to fifteen loads per acre would produce good results, especially if intimately and equally mixed with the surface soil.

Muck and ashes may be composted in the same way, or muck and any fermenting manure. One-third good stable manure to two-thirds muck forms an excellent compost for any crop, and from repeated experiments we are prepared to commend it as valuable for the particular use of which we have spoken in this article. In conclusion, we would particularly commend the application of muck composts, in all cases where the farmer may avail himself of the material—very likely it is just what is needed to restore his farm to a condition for profitable wheat growing, under judicious management.

TWO PLANS OF HOUSES.

We have received at different times many plans of dwellings from our correspondents, for which they will please accept our thanks. Some of them, which have appeared the most meritorious, we have occasionally inserted in our columns. The necessity of both re-drawing and reducing them in size, involves considerable labor, and has in some instances delayed their appearance longer than we have intended. This is the case with the two plans we have here selected for insertion.

The first, (Figs. 1 and 2,) is from B. F. FISHER of Zilwaukie, Mich., with several alterations or improvements in accordance with his request. He makes the following accompanying remarks:—

"Here is a plan for a house, containing a full supply of suitable rooms for health, convenience, comfort, economy and gentility, and costing only from $750 to $1,500, according to the cost of materials. *Here* it would only cost the first sum. I think that in most places it could be built for $1,000. I wish to see the plan published in the COUNTRY GENTLEMAN. It has many excellences, but I do not wish to take up the space to point them out now. I offer the plan for criticism."

Fig. 1—PRINCIPAL FLOOR.
J. Parlor—G. Dining-room—E. Kitchen—H. Bed-room—I. Closet—C. Pantry—B. Wash-room—D. Store-room—F. Entry—A. Wood-house.

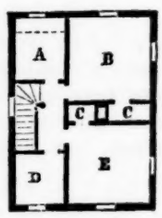


Fig. 2—SECOND FLOOR.
A. B. D. Bed-rooms—C. Closets—E. Library or Sitting-room.

The alterations we have made consist in, 1, connecting the two front verandahs, which were entirely separate in the plan sent, and consequently more contracted in appearance; 2, reducing the number of windows and enlarging the size of some; and, 3, in altering the arrangement of the second floor, by curving the stairs at the top, economizing room, and avoiding a bad shape to the larger of the rooms in the rear, caused by the projecting closet from the smaller rear room. If the latter needs a closet, it may be placed as the dotted lines indicate, removing the window to the other side.

This appears to be a neat and compact plan, and capable of being built at moderate cost for the room furnished. The kitchen has hardly enough light, there being but one window, and that under a veranda. The want of windows on opposite sides may make it hot in dog-days; this objection may however be partly obviated by opening the door and window of the pantry, or by allowing fresh air to blow from the wood-house.

The second design is from CLARK SWALLOW of East Bridgewater, Mass. He remarks:—

"I take the liberty to send a sketch of a plan of a cottage house, built for myself the past season, from a plan of my own. I looked in vain to find a plan to suit me in all the books that I could find, including your excellent yearly, the RURAL REGISTER; I could find plans that would do, but were too costly for me, or those that were not large enough to accommodate my family. The plan I send you is well adapted to the wants of the mechanic, the farmer, or the gentleman, and to those of moderate or good circumstances. The same plan can be made to cost from $1,200 to $3,000. My house cost $1,500, all ready to move in, all finished from cellar to the chambers. The same plan can be varied to suit builders, to have larger or smaller rooms, and still keep its well formed and beautiful proportions.

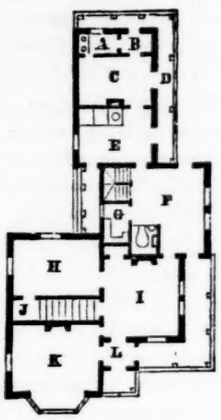


Fig. 3—PRINCIPAL FLOOR.
L. Entry—K. Parlor, 16 by 15—I. Sitting-room, 16 by 15—H. Bed-room, 11 by 16—F. Kitchen, 16 by 17—G. Pantry—E. Wash-room, 10 by 14—C. Woodroom, 10 by 14—D. Grapery—B. Entry—A. Privy.

Fig. 4—SECOND FLOOR.
B. Bed-room, 8 by 12—C. Bed-room, 16 by 15—D. Bed-room, 16 by 13

"My house stands on the southrely side of the road, and from all the main rooms you can see the road; the kitchen is on the warm side in winter and cool side in summer. It is well adapted to a corner lot, and for any corner on the lot, no matter on which side of the street. Just imagine the plan on the other side of the paper, [i. e. hold it reversed up to the light,] and it will suit the north side of a road and face the south and west, as all houses should on that side, as this does on the south side.

"I find in most plans in the books, that the most essential parts are left out, that the inexperienced builder needs most—that is, a full working plan of the house, and the details of the contract between proprietor and contractor. I have thought that one good planned cottage, with elevations, perspective view, working plans and contract, with quality and cost of material, would be worth more to the people, if inserted in your REGISTER, than half the costly books ever published.

"You will perceive that the main rooms are all about one size; and the long rafters will be all the same length; the bracket and outside finish cut on one bevel, which all carpenters will appreciate."

This plan is quite similar to the one given on page 24 of the first volume of RURAL AFFAIRS, and reversed; but as it contains some additional conveniences, we think it worthy of insertion. It is less compact in form than the preceding one, and will therefore require more exterior wall and cost more for the space furnished; but it supplies a greater number of conveniences, is better adapted for a fine house and would present a better external appearance, if the latter was properly designed.

WATERING PLANTS.

During the summer it becomes necessary to resort to artificial watering for garden plants, trees, &c., and it is a matter of considerable importance to perform this operation in the best way and at the right time; the chief object being to supply just as much water as the plants need and no more. To do this, notice their condition at the time of application. If trees, which have been transplanted in the spring seem to be inactive, and thus throwing off but a small amount of moisture, very little water is required; young trees especially are apt to remain three or four weeks after being set out, without making any

growth, and to give them an abundance of water would cause them to remain dormant rather than to help their growth. In such cases it is best to use water but very little. Again, if a tree grows fast and draws most of the moisture from the soil, water should be given, but not upon the surface. Break the top soil, and let the water soak well into the ground and not run off or form a hard crust upon the surface.

In watering garden plants the operation often does more hurt than good. By applying it on the top a crust is formed, and if water is again poured upon this crust it immediately runs off or helps to make a thicker crust upon the surface. This keeps the ground dry and the plant makes but a poor progress. A better way is to make several holes in the plant beds, or small ones by the side of the plant and pour the water into them. In this way it gradually soaks into the earth and the moisture is easily obtained by the rootlets of the plant. It is indeed the only proper way of artificial watering.

Evening is the best time to water plants. The sun is not shining and the state of the atmosphere is usually moist, which prevents a ready evaporation. L.

[For the Country Gentleman and Cultivator.]

GRAPES IN TEXAS.

This is a fine grape region, and seems to be peculiarly adapted to the growth of the vine, and the making of wine. The Mustang grape is very common, covering many a tree. It is now beginning to ripen. Its grapes are large, of a black or deep blue when ripe. Its racemes are small but abundant. Some vines are said to produce as high as forty or fifty bushels of grapes. It is a great runner, sometimes extending over more than one tree. I measured a vine recently which was eight inches in diameter. It almost covered a large post oak. The Mustang wine is of a rich, red color, acid, and pronounced by many to be superior to any native wine. This grape seems to be a form of the vitis labrusca, the parent of some of our best native grapes.

The Post Oak grape is another common grape in this section, but it is so low in its habit that its grapes are rarely suffered to mature, being greedily devoured by wild and domestic animals. They are large and purple, with a thin skin, and very pleasant for table use. This may be the vitis rupestris of Schule, but as I have not access to his description of that grape I cannot tell, only knowing that it is low in growth, and a native of Texas. I have been told of other grapes, some of which I hope to see, and I will then tell you some things about them. Before closing I will mention an instance showing the abundance of the Mustang grape, which was told me by Dr. Spann of Washington Co. He and his brother, with some eight or ten negroes, collected grapes in their vicinity and made seven hundred gallons of wine in about ten days. He said the time occupied in wine making did not exceed two weeks at the most. S. B. BUCKLEY.

Dresden, Navarro Co., Texas, July 1, 1860.

[For the Country Gentleman and Cultivator.]

MAXIMS FOR POULTRY KEEPERS.

Those who expect to be successful in raising or managing poultry, or hope to make it a paying part of farm business, should observe a few simple rules which will save them from much disappointment and trouble.

1. It is not advisable to keep large numbers of hens together, or go into the poultry business on a large scale. It is found impracticable and unprofitable—besides they cannot be kept in so healthy a condition as where but few are together.

2. It is impossible to keep hens to advantage without having a suitable and properly arranged house for their accommodation. This is as necessary as that a farmer should have a stable for his cattle, or a dwelling for his family.

3. In connection with the house, a poultry-yard should be provided, which should contain a grass plot, gravel, some quantities of slacked lime, and dry ashes.

4. The inside of the poultry house should be whitewashed twice a year or oftener, which will serve to keep it free from vermin, and the hens will be kept in better condition.

5. Pure water in sufficient quantities must be provided several times a day, in winter and in summer.

6. Feed should be given at regular periods. To fatten fowls, they must not be allowed to run at large. L.

[For the Country Gentleman and Cultivator.]

SURFACE MANURING AGAIN.

THE WASHING OF THE MANURE IN TIMES OF RAIN.

MESSRS. EDITORS—I have no disposition, even if I had the ability and leisure, to enter into the discussion of this question. But as this is an excessively wet day—wind northeast and chilly—the out-door prospect dark and gloomy, I thought it a fit time to say a word upon this *dark* subject—the application of manure.

I have been led to this from an article in the Co. GENT. of June 28, p. 410, in which the writer uses many arguments, and makes some explanations to sustain his *theory*. Now this may all be satisfactory to him, and manure applied to the surface may be his best mode of using it—as in some cases it undoubtedly is—*not because nature*, "*his teacher*," points out *this* as the *best* way, but simply because the manure to be used, the soil upon which it is to be put, and the crop to follow, were better adapted to this mode of application.

Then again, the lay of the land, it seems to me, would make a good deal of difference as to the best and most economical way of applying manure. Hilly or rolling land that is liable to wash more or less during the fall, winter, and spring rains, and while the frost is in the ground, so that the water cannot settle off, or when the snow passes off rapidly in the spring, while the ground is yet frozen, except an inch or two of the surface, must lose much of the manure when put upon the surface in the fall. With land quite level and flat the objection would not be as great.

To illustrate from my own experience. My farm lies in an oblong form, it being about one-third longer than broad. The center, through the whole length, is considerably lower than either side, so much so that nearly all the surface water finds its way to the middle, where it passes off through a low strip of land into Black river, consequently this strip through the center was quite wet. When I bought the farm, ten years ago, I put a ditch through the center, the whole length, three feet wide and from two and a half to three feet deep. Into this I have brought several lateral stone drains, where they were most needed. Now in the fall and spring there is quite a stream of water running through this drain, also during winter thaws, and it brings with it a good deal of surface soil and mold from adjoining plowed land—of this I am sure, from the fact of my having a kind of sink or basin through which the water runs less rapidly, and the sediment has an opportunity to settle, or at least a portion of it, also from some depressions in the bottom of the drain, which soon become filled up after having been cleaned out.

Now if manure be put upon a surface similar to this in the fall, (and there is a good deal of such land,) how can a large waste be avoided from washing? If the manure is well rotted and fine it will pass off in the form of sediment—if coarse and raw, in a liquid form. At least I think it would be reasonable to expect this result.

I beg to be excused from "thinking a little longer," merely to force myself into the belief that nature's mode of *applying manure* is more perfect than many *other* things she does, where man has improved upon and modified her works. Nature brought us into the world in a state of nudity, but it would be hardly decent to remain so, or comfortable either, in dog days or with the thermometer much below zero. J. L. R. *Jefferson Co., July* 5.

LETTER FROM JOHN JOHNSTON.

NEAR GENEVA, July 5, 1860.

MESSRS. EDITORS—Part of my wheat is about ready for the reaper, but the weather is bad, our hay suffering badly. Winter barley was harvested in this neighborhood 25th of June. I have little doubt but some wheat may be cut already on sandy soils. Midge does considerable damage in some fields, mine is comparatively free of that pest; all we want is good weather to insure a good crop of wheat, and of fine quality.

Tell A. Moss that I use no other preventive for ticks (keds, I notice, is the name for them in some parts of Europe) than good feeding, dry yards, and well littered, and not turn out in spring until they have pasture enough to feed them fully; in that way my sheep are never *infested* with ticks. I seldom shear any, or only a few now, as I sell them fat generally before shearing, but I superintended the shearing of 185 belonging to my son-in-law, who is in Europe, and neither the shearers or I could find a single tick, and they sheared over 5 pounds of wool each. Now those are kept on the same plan as I do mine. I had an idea that feeding oil meal was a preventive, but this last winter my son-in-law fed no oil cake meal, and he had 109 yearlings that were fed on clover hay and thirty bushels of buckwheat during the winter. If there was a tick on the lot we did not notice it. If other farmers would keep their sheep in the same manner, they would surely have no ticks. When I first commenced keeping sheep here I kept, *at least fed them*, like other farmers, only I made winter shelter; then they bred plenty of ticks. This I saw was unprofitable to me, and I commenced feeding better and littering the sheds and yards thoroughly, and I soon found I could raise sheep and not *let them* raise ticks, and I know every farmer can do the same if he keeps his sheep in a thriving condition all the year.

JOHN JOHNSTON.

[For the Country Gentleman and Cultivator.]

DRAINING AND THE MOLE PLOWS.

EDS. CO. GENT.—During the past few months much has appeared in your paper and elsewhere upon the use of the mole plow, in draining. Several patents have been issued for new machines, and considerable interest has been awakened upon the subject, especially among the farmers of the west, the experience of the past two years having very forcibly impressed upon their minds the necessity of drainage. Hence anything bearing upon this subject has been examined with unusual care. The manufacture of tiles is confined to very few places in the west, and their expense is a great obstacle in the way of their introduction.

Now we have here the finest scope for the use of the mole plow in the known world, for we have no stones or other obstructions in the way, and *if* the drain is only *durable*, we have no further excuse for not commencing the work in good earnest immediately. But here lies the difficulty. I have been satisfied from the first agitation of this subject that there were inseparable objections in the way, originating in the character of the soil and subsoil, but not until reading the article from "A. P." Galesburg, Ill., on page 347, Co. GENT., have I felt at liberty to indulge in anything farther than private doubts. A. P.'s experience is just what might have been expected from the nature of the soil. Any one familiar with the country, or the passing traveller cannot but perceive that its earthy formation is very peculiar—very unlike what we meet with at the east.

We have no hills, but plenty of gullies or "gulches"—the general appearance is that of a vast plain, the channels of whose streams have either dropped, melted, or washed out. The underlaying "joint clay," which is very tough and hard to penetrate when first brought to light, under the influence of air and frost, its moisture seems to melt and pass away like sugar—it crumbles very easily, and in a year or two makes the finest of soil particularly for wheat—such declivities as are cultivated to their very summit in the vicinity of Cincinnati, can never be cultivated here.

In the easy friability of these clayey subsoils lies the guarantee for the inexhaustibility of our soil, but this very feature constitutes an insuperable objection to the dispensing with tile—*we must drain, but must also face the music.* It is possible that where a *constant* stream of water can be had, mole draining may answer, but if allowed to become dry, the sides and roof will crumble and fall in.

I do hope that our farmers will be careful about investing in "patent" machines until the thing is fully and fairly tested. The country is so completely flooded with worthless trash called "patents," and backed up by as worthless venders, who stop at no amount of lying, so they but get the money, that a few words by way of caution may not be out of place. Prove all things and and hold fast that which is good. HAWK EYE. *Keokuk, June* 18.

[For the Country Gentleman and Cultivator.]

THE WHEAT MIDGE.

EDS. CO. GENT.—In your issue of June 21, I see the following note from J. JOHNSTON, under date of June 11: "The wheat midge is very numerous, and prepared to deposit the nits. They are all of seven days earlier than last year." In the same number, on page 394, Olcott's Yale Lecture Report on the cultivation of the cereals, by JOSEPH HARRIS, we read: "If we could get wheat into bloom ten days earlier, we could escape that terrible insect pest, the midge."

The latter seems to have been the prevailing sentiment relative to the means of saving the wheat crop from insect depredations. But I have doubted its correctness. Insects which destroy our fruits or grains have a wonderful instinct as to the time their work is to be done.

I have in my orchard several different kinds of apple trees; among them is the Northern Spy, a tree which is some eight or ten days later in putting forth its leaves than any other in my collection. Now I have observed that the apple tree worm hatches just about as many days later on this tree as *it* is later than the others in putting forth its leaves. Nature thus provides against starvation, by withholding from life until food is provided to sustain that life.

So with the striped bugs which infest our vines. Their appearance is earlier or later, as an early or later season has prepared their appropriate food.

A similar law governs in the production of all our insect tribes. They have their appointed commissions to fulfil, and they will be sure to come at the right time to do their work. If we cheat them once or twice by stealing the march upon them, they will be sure to wake up early enough for us next time, and perchance they will come down upon us with double fury for their previous loss.

Is it not so with the midge? For several years Mr. Johnston, and some others, perhaps, about Geneva, have been trying to cheat the midge, by producing earlier kinds of wheat. And what is the result. Why, this year "the midge appears full seven days earlier than last year." And if they can get a grain ten days earlier than any which they now raise, they will find this insect wake to life early enough to do his work in its appointed time. I am confident, Messrs. Editors, that some other plan must be adopted to save the wheat crop from the midge than that proposed by Mr. Harris in his New-Haven lecture. What that plan is, it is not the object of this paper to suggest.

Clinton, N. Y., June 29. S. W. RAYMOND.

[For the Country Gentleman and Cultivator.]

QUESTION FOR BEE-KEEPERS.

MESSRS. EDITORS—Can any experienced apiarist explain the reason why bees do not store honey from buckwheat? Formerly they stored *large quantities* from it, though of a dark color and inferior quality. But for two or three years past they have not made a pound of honey from it in this neighborhood. There is no smell of buckwheat around the hives—whereas there is always a *very strong* smell when bees are *storing* honey from buckwheat blossoms. When in blossom the buckwheat fields are covered

with bees during the early part of the day. Then why do they make no honey from it? It is a mystery to me, and I venture no theory or hypothesis, but submit it to apiarists or botanists. G. W. L.

[For the Country Gentleman and Cultivator.]

LETTER FROM NORTH-CAROLINA.

The southeastern portion of Perquimans county is well adapted to wheat; very considerable quantities are annually shipped, via Dismal Swamp Canal, to New-York and Baltimore. The reaping is mostly done by cradling. The surface is so level as to require it to be plowed in narrow lands, and then a great many water furrows running crosswise are necessary to conduct the surface water to the main drains. Reapers therefore do not act well, owing to the inequalities of the surface. The soil is composed largely of clay, although the Geographies all tell us that North Carolina is a barren pine waste for 60 miles adjacent to the ocean. There is undoubtedly much poor, sandy land in this section of the state; but, with all due respect for the Geography men, I think that my native county (Perquimans) has some land whose fertility I have never seen surpassed by that of any other, except possibly some parts of the Mississippi Valley. In short, I can say, with confidence, that the portion of our State which lies north of Albemarle Sound and east of Roanoke river contains a large share of good land. Its greatest defect is its flatness, requiring expensive ditching operations.

The hog cholera (so called) has destroyed a great many animals here within a few years past, and has rendered pork raising unprofitable for the present.

Great quantities of strawberries and raspberries are annually sent to Norfolk, Va., from this and adjoining counties, and no doubt some of them find their way to New-York city.

The Scuppernong grape grows finely on our sandy soils. It is a native, and of excellent qualities. It requires very little care, beyond being provided with a scaffolding to keep it from the ground. One vine will cover a very large surface. My scaffolding, which is completely covered by a single vine, is 25 feet by 30 feet, and I am very sure that many can be found, each of which shall cover twice as much surface as mine does. Good wine has been made from it, but in this point I am not interested, except by way of regret, for I never use nor encourage others to use any intoxicating drinks as a beverage. There are certain conditions of *disease* in which alcoholic liquors are serviceable. They should only be used internally as *medicines;* and the same skill is necessary to direct their prescription as is required by other articles of the materia medica.

Sweet potatoes are an important crop with us, both for table use and for fattening our pork. The cornfield pea (of which there are many varieties) is extensively sown among corn, at the last working. The hogs are required to dig the potatoes and to gather the peas for themselves. After frost, however, it is not safe to leave the potatoes in the field, as they are easily damaged by cold weather.

Perquimans Co., N. C. Wm. Nicholson.

HOW TO MAKE CURRANT WINE.

This article, as usually manufactured, is rather a cordial than a wine, and is entirely inferior to the common wine; but when properly made, it will be a very superior, healthful beverage, particularly for summer drink, when fully diluted with water.

We have experimented carefully on the making of currant wine, and the following will be found to give a result which we have found no difficulty in selling in large quantities at $1 per gallon.

Before pressing the juice from the currants pass them between a pair of rollers to crush them, after which they may be placed in a strong bag, and they will part with the juice readily by light pressure, such as a common screw, weights, &c. To each quart of juice add three pounds of treble refined loaf sugar—single refined is not sufficiently pure—then add as much water as will make one gallon. Or in other words, suppose the cask intended to be used be 30 gallons. In this put 30 quarts of currant juice, 90 lbs. of double refined sugar, and fill the cask to the bung with water; roll it over until the sugar is all dissolved. This will be told by its ceasing to settles in the barrel. Next day roll it again, and place it in a cellar where the temperature will be sure to be even, leaving the bung loose for the free admission of air. In the course of one or two or three days, fermentation will commence. In placing the ear to the bung hole, a slight noise will be heard, such as may be observed when carbonic acid is escaping from champagne or soda water. Fermentation will continue for a few weeks, converting the sugar into alcohol. As soon as this ceases, drive the bung in tightly, and leave the cask for six months, at the end of which time the wine may be drawn off perfectly clear, without any excess of sweetness.—*Mass. Ploughman.*

RAISING RED CEDAR FROM SEED.

A correspondent lately made an inquiry as to the best mode of raising the Red Cedar from the berries. We find the following mode described in the Report of the Wisconsin Fruit Growers' Association, by Samuel Edwards, an experienced nurseryman. Bruise the berries early in March, and mix with an equal or greater bulk of wet wood ashes. In three weeks the alcali will have *cut* the resinous gum, when the seeds may be washed clean from the pulp. Sow in rows a foot apart, (to admit clean cultivation,) in a rich soil, well dressed with a mixture of leaf mold and sharp sand. Shade the bed during summer, and cover with two inches of leaves for winter.

[For the Country Gentleman and Cultivator.]

CORN COBS.

We should judge that some farmers conclude that it would be as profitable to discuss the propriety of feeding saw-dust to stock as to grind up corn cobs for that purpose. Because they are of not much value themselves, it does not prove that they may not be ground with other grain to some advantage. I am acquainted with a farmer who was in the habit of feeding from twenty to thirty large oxen every winter, and he always bought his corn in the ear and had it ground in that shape—for the reason that his oxen never failed of doing well when fed with cob meal—while on the other hand, when fed with clear meal they were very likely to become cloyed. For the last five years farmers in this vicinity grind nearly all of their corn in the ear for all kinds of stock except fat hogs, showing a change in that respect, for twenty years ago, little if any was ground in that shape.

That there is a little virtue in them may be proved from the following fact: A poor man who had one cow was unable to supply her with hay on account of scarcity, managed to keep her alive by grinding cobs for her, which he obtained from his neighbor, who raised a large crop of corn, and after shelling it threw the cobs out by the side of the road. We don't know how much the miller made by tolling the *cobs.* J. B. B. *New Braintree, Mass.*

[For the Country Gentleman and Cultivator.]

Cocoa Nut Drops--No. I.

Take one cocoa nut, grate and dry it a little—then mix with the beaten whites of ten eggs and 16 teaspoonfuls of powdered sugar—make them up in little round balls, and bake them quickly, and you will have the best kind of drops that you ever tasted. Mary.

French Loaf Cake.

1 pound of flour.
½ do. of brown sugar.
½ do. butter.
4 eggs.
1 wine glass of sweet cream.
1 do. wine.
1 teaspoonful of soda.
1 pound of raisins.
1 do. currants.
½ do. citron.
Spice to suit the taste. Mary.

Bathe the parts affected with water in which potatoes have been boiled, as hot as can be borne just before going to bed; by the next morning the pain will be much relieved, if not removed. One application of this simple remedy has cured the most obstinate rheumatic pains.—*Family Herald.*

Inquiries and Answers.

RAISING THE LOCUST FROM SEED.—I have a prairie farm and am anxious to raise a locust grove. Many in this vicinity have tried to raise locust trees, but owing to mistreatment in the raising or misjudgment in the selection of seed, none have succeeded very well. I have on hand about a pound of seed which was sent me from northern New-York, and as we are about a degree further south than where the seed were raised, I do not fear winter killing if properly attended to. Can you or some of the many readers of THE CULTIVATOR, advise me as to the manner of sowing, time, culture, &c., &c ? *My* object is to ornament a building-place, but as *timber* is rather scarce in this part of the State, if locust was *once fairly introduced*, a few years would supply many neighborhoods where now there is a deficiency. R. P. MOORE. *Otranto, Iowa, June* 16, 1860. [To induce locust seed to grow, pour boiling water on them, in quantities of a quart or so in a small vessel, so that the water will not remain hot long, and let them stand several hours. A number of them will be found swollen to double size. Select and plant these, and they will grow—the unswollen will not. Repeat the process on the remainder, successively, until all are prepared, planting the swollen seed at each repetition of the work. They should be planted in drills where they may be cultivated and kept clean, and they will grow much faster than if neglected and allowed to become enveloped with weeds and grass. If the seed are good, this will insure success.]

THE "IRON WEED."—We are much annoyed in this region with the Iron weed; it is exceedingly unsightly, and spreads all over our best pasture lands. Can you, or any of your readers, give me directions for its extermination without continued cultivation, which is not entirely practicable in all of our pasture ground, owing to some of it being in timber. It is said that certain seasons of the year are favorable for its extirpation. Can you give us any such information as would serve us? P. D. *Bullitt Co., Ky.* [We hope some of our readers will be able to reply.]

BINDING THE CO. GENT.—I have several vols. of your paper unbound—do you get up covers to bind the paper, and thus have uniformity in all the volumes? [No.] Could you furnish all of the volumes of the GENTLEMAN, and if so, what would be the price? P. D. *Kentucky.* [Not at present. The price for bound volumes is $1.75 each—we have several orders registered for complete sets, and supply whenever we have the opportunity to purchase missing Numbers, so as to complete volumes that are defective.]

ROOT CROPS.—In your issue of July 5 I notice an interesting and timely article on the cultivation of roots. Having some two acres planted with roots, and having had but little experience in this department of agriculture, the author would confer a favor by giving his experience in harvesting, curing, cleaning, and the best method of keeping them through the winter, my intention being to feed them to the cattle.
New-York. A. J. M.

WHITEWASHING TREES.—Is whitewash beneficial to fruit trees? C. B. GRIFFIS. [If made from good fresh lime, and put on *quite thin*, so as to penetrate crevices in the bark, and not to form a scaly coat, whitewashing is beneficial to the bark of trees, and tends to destroy the eggs of insects; but the unnatural whiteness spoils their appearance. We prefer a moderate solution of potash, soap suds, or ashes and water.]

BOOKS ON ORCHARDING.—Please inform me where to procure the best work on the culture of fruit trees, the apple and peach especially—combining, if possible, the general horticultural information required by an amateur. THOS. J. MATTINGLY. *Plattsburgh, Mo.* [The standard fruit books published by C. M Saxton, Barker & Co., and sold at this office, or sent by us by mail, will give the desired information—Thomas' American Fruit Culturist or Barry's Fruit Garden at $1.25 each, or Downing's Fruit and Fruit Trees for $1.50.]

DESTROYING WILLOWS.—One of your subscribers has a piece of marshy land covered with yellow willow bushes. Will mowing them in August kill the roots? S. B. D. *Milwaukee, Wis.* [A single cutting will not destroy them, but if the sprouts or suckers are kept rubbed off for some time, the roots will die for want of food through the leaves. We are unable to say precisely what amount of labor of this kind will be required.]

RHUBARB WINE.—What is the best recipe for Rhubarb Wine? I have seen several, but none that appeared to be O. K.—You would, by publishing one, no doubt oblige many of your readers, including AN OLD SUBSCRIBER. *Pittsburgh, Pa.* [Can some of our readers answer the above?]

GRASS.—Please give me the botanical name of the enclosed specimen of grass, and where I can procure the seed, and at what price per pound. I find it growing in small patches on my lawn, and sown in rich soil it will not grow to exceed four inches in height. It makes a beautiful compact turf, the very thing for lawns, as it would need but very little cutting. J. R. GARDNER. *Montgomery Co., Va.* [The specimen forwarded is somewhat injured, but appears to be a half grown plant of *Poa annua*, a small annual grass, common in door-yards, of very light green color. As it is reproduced annually from seed, it is doubtful if it would form a strong permanent turf. The Poa annua often grows 6 or 7 inches long, which is more than our correspondent states; if the sort sent us is never over 4 inches, and has not the peculiar yellowish green color of the annual Poa, we should be glad to receive further and more matured specimens, dried previously between the leaves of a book under pressure, (20 lbs. or more.) The subject of selecting the best species of grass for lawns should not be lost sight of; we shall not probably find one that will answer well that does not need mowing; but if one could be obtained with fine, hair-like, dense foliage, so as to form a softer and more velvet like surface than red top and white clover, it would be an acquisition. Among the several native species, possibly there may be one.]

PUMPS.—It seems to me the subscribers to the Co. GENT. appeal to you for all sorts of information from the building of "Hornet's nests" to the Atlantic cable. Allow me, therefore, to ask if there is anything new in the pump line for lifting water from wells? For four or five years I have been using the rotary pump, made up of links six inches long, with Indian rubber balls every five or six feet apart. This pump worked very easy, a child 4 years old could turn it, but it has worn out and I cannot replace it in Richmond. It was very liable to get out of order. My wells are 24 feet deep. D. S. D. *Henrico Co., Va.* [We are not aware of anything decidedly new and valuable in the construction and manufacture of pumps—but would invite our correspondents to give us their best and latest information derived from experiments. We have known some modifications of the forcing pump to work admirably in rather deep wells.]

FOUNDERED STOCK.—I shall feel obliged if through your valuable paper the Co. GENT., you would give me a remedy for any kind of stock which may get into a cornfield and eat too much; it is a common occurrence here—I lost a yearling steer last fall, and would like to be prepared with a sure remedy as the danger approaches. W. A. *Iowa City.* [Will some of our correspondents reply to the above.]

WILLARD'S ROOT SLICER.—Please inform me through the COUNTRY GENT., where the Willard Root Slicer can be procured, and at what price. If such things were advertised in our agricultural papers I think a great many would find their way to the west. H. A. T. *Marshal, Mich.* [It can be procured we believe, of Geo. Campbell, West-Westminster, Vt.]

PUMPKINS.—Will any of the contributors of the COUNTRY GENTLEMAN furnish me with the information, how to keep pumpkins from decaying during the winter? I am very anxious to know, as I expect to raise a considerable quantity this year. I should also like to know the best method of preserving sweet potatoes. R. B. P. *Warsaw, Va.*

SEEDING TO GRASS AND CLOVER.—How would it do to seed down with timothy in the fall and clover the next spring—rolling or harrowing in the clover. *New-York.* [This is a course often practiced, and succeeds well with rolling when the soil is dry enough to allow it. A common harrow would be too coarse and rough.]

DISEASE OF THE PEACH.—Can you or any of your readers tell me anything of a new disease upon the peach tree? The bark upon the roots commences dying, and extends up and around the trunk of the tree until it kills it. I find this upon trees that have no worms in them. J. R. GARDNER.
Montgomery Co, Va.

ELDERBERRY WINE.—Will not some of your subscribers send me through the columns of the Co. GENT., a recipe for making "Elderberry Wine." It will much oblige A. B. R.

HEAVES IN COWS.—We have a cow that acts and breathes very much like a horse with heaves. Can you or your correspondents suggest anything in the case, and oblige A. Moss. *Belvidere, Ill.*

BOOKS ON HUSBANDRY, &c.—Please inform me what is the most reliable work that I could purchase, comprising a treatise on the general management of farm, and stock of all descriptions, and the price. Also a separate treatise on the *Diseases* and management of sheep and cattle. J. E. J. [Allen's Farm

Book is a good treatise of its size, price $1, and Allen's Domestic Animals contains much in relation to their diseases and management, price 75 cents. Dadd's two treatises on the Horse and on Cattle are more recent and more complete works, price each $1 00. The two published volumes of "Rural Affairs," contain more on the subject of general farm management, and the various details, than any other work of the size, price $1 per vol.]

Scratching in Horses.—I have a horse that is continually rubbing, scratching, and biting himself whenever he is in the stable or pasture. If you or some of your subscribers would prescribe a remedy, you will confer a favor. A Reader of The Cultivator. [It is important to ascertain the cause before selecting a remedy. If it comes from lice, as is not unfrequently the case, which usually proceed from *poultry*, remove the poultry, wash well the stable with hot water, and then whitewash it. To kill the lice and cure the skin, Dr. Dadd recommends a mixture of equal parts of linseed oil and spirits of turpentine, with twice as much more as both, of pyroligneous acid, to be applied three times a day, afterwards washing with soap and water. Or, the vermin may be killed by sponging with an infusion of lobelia. Sometimes the skin is affected by a bad state of the stomach; a change of diet is the remedy, to which treatment may be added giving a little sulphur with the food. If the mange or itch is the difficulty, sponge with lime water, give sulphur, and sponge again with the first mentioned liquor above, with a little sulphur added.]

Query for Wheat Growers.—I have a side hill of about seven acres, sloping towards the west. The soil is a heavy sand loam on the upper part of the hill; further down is a clayish loam; still further down, towards the bottom, is a stiff clay, but fall plowing renders it quite mellow. It has been pastured with cattle or sheep for ten years past. I think the land sufficiently strong to bear a good crop. I plowed it last fall—this spring pulverized with cultivator harrow and sowed to oats. Shall harvest a good crop. I would like to sow it to wheat this fall. What I desire to know is, your opinion, or the opinion of some of your wheat growing correspondents, as to the expediency of sowing wheat on such soils, in this locality, (35 miles north of your city, in the valley of the Hudson,) also what is the best variety sown in this part of the State, and the best time to sow in order to have it the least exposed to the ravages of the fly? This was formerly a fine wheat growing county, but recently there has been little or none grown on account of the destructive effect of the weevil.
Saratoga Co. Sam'l Sheldon.

Superphosphate of Lime.—Can you, or some one of your correspondents, tell your readers how superphosphate of lime may be manufactured. Many of us have been humbugged quite enough with the articles that are sold for superphosphate. For my part, I have no doubt of the value of the genuine as a fertilizer, and if we could by some economical process manufacture the article ourselves, we should know at least what we invested our money in, and if it proved valuable as a manure, receive some benefit from it. I was shown some corn the other day, where the material from different manufacturers was tested side by side; the difference was apparent at forty rods distant. With one, there was no perceptible difference between the row and the next which had no manure applied; while on the other side, a row to which was applied the product of another manufacturer, the corn was such as we all like to see, and nearly twice the heighth of the former. The conditions otherwise, were as nearly alike as possible. E. E. W. *Concord, N. H.*

Pea Nuts.—Will the Co. Gent. please inform me how Peanuts are cultivated, also if they grow under ground same as a Potato, if so why they are covered with so hard a shell? Hoping you will give this your earliest attention I remain. R. T. Brooks. [As the pea-nut cannot be cultivated in the northern States, we have no practical knowledge of its management. The plant is the *Arachis hypogea*, belonging to the same natural order as the pea, bean, &c. The specific name ("below ground") is an allusion to the unusual circumstances of the pods, as they increase in size, forcing themselves into the earth. The seed are planted about a foot apart, in sandy or alluvial ground, and the plants are earthed up as the pods form. For further information, we desire the experience of some of our southern readers who have had practical experience with this crop.]

Culture of the Blackberry.—If convenient, I should like to see an account of the cultivation of blackberries in the next no. F. A. R. *Annapolis, Md.* [Procure plants which have been propagated from cuttings of the roots, (suckers are apt to be one-sided and destitute of small fibres,) of moderate or rather small size, as these succeed best. Plant them in a good rich soil, good enough for corn or cabbages, about four by six feet. Cultivate them well,—if the plantation is extensive, by horse power,—and in summer, as soon as the shoots are three or four feet high, pinch off the top to induce a thicker growth and to send out side-shoots. These will bear another year.]

Binder attached to Reaping Machines.—There was something said in a former no. of the Co. Gent., about a binder to be attached to reaping machines. I want to hear something more about them. Let those that have used them speak for or against them as their merits deserve. Such a machine will be a valuable one here, as hands are scarce. Let those who have used these binders, state what kind of reapers they were attached to, and their cost ready for work.
Richland Co., Ohio, July 16. Levi Hawk.

When does the Milk Sour?—In the Country Gentleman of July 12th, you give the opinion of a dairy woman in western New-York, as to when milk should be skimmed. She says, just as the milk begins to sour in the bottom of the pans. Can you inform me how we are to know when the milk is sour in the *bottom* of the pans? If you or your correspondents can answer this, I will be obliged.
John Snell. *Canada West.*

Prices of Lands in New-York.—Our Virginia correspondent, who inquires about the price of farms in eastern and central New-York, is informed that the prices will vary from $30 to $100 per acre, according to quality of soil, location, improvements, &c. Good farms, with tolerable buildings, and in good locations, could probably be bought for $75 per acre.

Query about Wheat.—Is there a variety of white wheat that ripens as early as the Mediterranean, and is no more injured by the Hessian fly than the red chaffed Mediterranean? A variety that produces as well as the white blue stem has, before the midge made their appearance. If there is, where can I get it, and at what price? H. K. *Wrightsville, Pa.*

Cotton Seed Oil.—I should be glad to get more information on the making of Cotton Seed Oil than I have seen in the Country Gentleman, or the Patent Office Report of 1855. W. C. H. *Maryland.* [The inquiry upon this subject is constantly extending; we trust a reply may be elicited.]

Bright on Grape Culture.—You will please to inform me where I could obtain "Bright's System of Grape Culture." J. Pollock. [In answer to the above and similar inquiries from others, enclose 50 cents in P. O. stamps to Wm. Bright, 627 Market-st., Philadelphia, Pa.]

[For the Country Gentleman and Cultivator.]

GOOD RHUBARB WINE.

In answer to "An Old Subscriber" I submit below a recipe made up from many others, and I think it produces an excellent wine, closely resembling in taste and color the best sherry after two or three years age.

Recipe.—Take, for instance, a 40 gallon cask. Fill it nearly full of rhubarb juice and water in equal proportions. Then dissolve 120 lbs. best white sugar, and add to this one tablespoonful of sulphuric acid to over five gallons wine. This converts the sugar into grape sugar. Then fill the cask full and set it in an equable temperature to ferment with the bung lightly laid on the hole. Let it stand until fermentation entirely ceases; then add the beaten whites of eight eggs and shake the cask well and keep it open for a week. Then rack it off into a clean cask and bung it up or bottle it and let it stand for a year or two, when it will be better and more wholesome than nine-tenths of the foreign wines in the market. I will add, that all other domestic wines may be made after this recipe, only adding or decreasing the quantity of sugar and water as the fruit juice is more or less acid than the rhubarb juice. Charles Stewart. *Pennsylvania.*

Recipe from Another Correspondent.

Messrs. Editors—A few years ago, while visiting in the Connecticut valley, I drank some rhubarb wine, clear, sparkling and delicious. My host said, as he smacked his lips over it, that it equalled the best champagne, and he was a person well acquainted with wines, both foreign and domestic.

I afterwards got the recipe, and send it now, hoping it may meet the want of your "Old Subscriber."

Take 1 gallon of rhubarb well bruised, add 1½ gallons of cold water. Let it stand 3 days, stirring it every day. Then strain it, and to each gallon of the liquid put 4 pounds of loaf sugar. Keep it one or two months, or until it seems to have done working, then bottle it. H. *Keene, N. H.*

THE CULTIVATOR.

ALBANY, N. Y., AUGUST, 1860.

☞ The truth that improvement *is* gaining ground, however slowly, among the Farmers of this country, is one of which additional evidences are afforded to the careful observer in almost any direction in which he may direct his scrutiny. In the course of our last volume we referred at considerable length to one or two instances in this County, in which, particularly, gratifying proof was given that changes for the better are getting a foothold, by the extension of drainage, the feeding of mutton and beef, better tillage, more manuring, and the extended cultivation of roots—changes here, as elsewhere in our older states, by no means yet entitled to rank as a revolution, and sometimes, indeed, proceeding almost imperceptibly, but still such as to warrant us in deriving from them encouragement for the Present, and a considerable contrast with the Past of ten or fifteen years ago.

Last week we had the opportunity of driving out several miles into the towns of Bethlehem and New-Scotland. Col. Wm. H. Slingerland, whose home farm is between five and six miles from the city, has there occupied about a hundred and fifty acres for ten or twelve years. When he went on to the farm, not an acre would cut a ton of hay—now he will mow 60 or 65 acres, and has no doubt it will average two tons throughout; last year a patch of six acres in oats yielded 106 bushels per acre, and his oat field this year promises 100 throughout, notwithstanding the season is considerably less favorable. He has laid three or four miles of tile drain, and is constantly putting in tile as a field needing drainage comes to be broken up. He has an excellent barn for convenience, and saves carefully the manure there accumulated—using also largely of plaster and ashes, which—especially, perhaps, the latter—prove admirably effective upon his soil, a tolerably heavy loam, while lime has never seemed to do it much good.

Impressed with the importance to the farmer of a better class of stock, Mr. S. has been breeding Short-Horns for several years, alone, and in company with Messrs. Bullock & Hurst, to which partnership belongs the frequently noticed bull 'Neptune.' The cattle were looking well, although receiving no extra care. Without having at present the space to particularize, it is at least proper to add that Mr. S. and his associates will be doing a good work indeed, if they induce more of the farmers of the county to take that most important of all steps in the improvement of their stock—never breeding except to a bull of good character and descent. The means of taking this step are now easily within the reach of nearly all.

Driving on a mile or two we called hurriedly upon Capt. Hilton, who has been co-operating toward this end, by the introduction of Devons; a stroll into the pastures carried us among them, and we were much pleased with their condition and appearance. Capt. H. has been setting out a good deal of fruit since his place was noticed two or three years ago in our columns.

These notes must, however, be concluded. The interest with which the farmers of the neighborhood watched a dozen years ago the first operation of a Mowing machine on Col. Slingerland's farm—an improvement which, since that time, has been worth to them by its general adoption probably thousands upon thousands of dollars—has been in some measure paralleled by their curiosity in the matter of drainage and other improvements, but these latter, not appealing so immediately as it seems, to the pocket, would naturally win their way more gradually. We may repeat in closing, a remark we have heretofore made more than once—that the Farmers of this region possess some most important advantages in the excellence of their home market and other respects, and that we hope to see the County itself in time ranking correspondingly well, in comparison with other parts of the State heretofore more noted for their agriculture.

☞ Our foreign exchanges are already full of the Agricultural Shows of the present season. Many of them we should like to notice if our space permitted. The Essex Society has just had its exhibition at Saffron Walden, and the account of it teems with familiar names. The Oxford and Banbury Society has just held its show at the latter place, and "Royal Turk" comes from it with a challenge cup as the best horned animal in the yard. In Scotland Glasgow has been the scene of one exhibition and Stirling of another, accounts of which are among our last advices. The present month is to be a still more active one than June—the Royal Ag. Society closes its General Meeting at Canterbury this week; the Irish Society meets at Cork, July 25–27, and several of the most important provincial shows occupy busily the interim.

— Across the channel, we already have accounts of the National Show at Paris as "a great success." For the second time "the Palace of Industry, built in that unique promenade, the Champs Elysées, for the Great Universal Exhibition of the Industry of all Nations in the year 1855, has been turned into a temple dedicated to the products of agriculture." The Mark Lane Express has a special correspondent there, and Edinboro' is represented by the Editor of the North British Agriculturist. "Never," says the latter, "in any previous exhibition connected with agriculture has there been such an extensive display of stock, implements, and products of the soil. The French Government is bestowing more attention on agricultural improvement, than any other Government in Europe." But our contemporary argues "that the Government would attain their purpose much more economically, and at the same time more effectually, were such exhibitions more directly connected with the practical agriculturists of France." This may be true, but we saw last year how it is a part of the French system to retain all these things in the hands of Government directly; it is the Emperor by deputy who conducts the local as well as National Shows, and it is very possible that private enterprise in France could never accomplish, even if it could be brought to undertake, what is now done by the public funds in the hands of the Ministry of Agriculture.

— In France—now that we are fairly there—the season has this year been a backward and peculiar one. We have already referred to the cold and stormy character of the spring, and the severity of the preceding winter. The prospects of the French husbandman are quoted as anything but bright, as late as the 20th of June; there had been consequent excitement in the grain markets, and rising prices are anticipated—indeed an advance the previous week had unsettled business—holders unwilling to sell, millers and merchants anxious to increase their stocks. France, it is stated, apparently on good authority, "will doubtless require large imports of grain to supplement a deficient crop, and thus tend to raise prices over the whole of Europe and America."

☞ No other European nation is apparently more eager at present to acquaint itself with the improvements of others, than Russia. This is true in Agriculture as well as with regard to other arts. The Russian government is now establishing at St. Petersburgh an Imperial Agricultural Museum for the collection and exhibition of Implements and Machines of husbandry, and has taken measures to secure an assortment of the best American manufacture for this purpose. The commission having the subject in charge, accompanied by the Russian Consul-General at New-York, recently visited Albany, and after a careful examination of some of our manufacturing establishments, as well as of the collection deposited in the Museum of our State Agricultural Society, made an arrangement with Messrs. Emery Brothers not only for samples of the machinery of their own construction, but also for the selection of an additional assortment—the shipment of the whole of which, we learn, has just been completed, and

they will arrive out in ample season for the grand Imperial Fair, to take place at St. Petersburgh in September next.

☞ What the Farmers and Gardeners of Long Island produce for market and procure from New-York, is well illustrated in the following figures, for which we are indebted to an attentive correspondent in Brooklyn, J. I. SHIPMAN, Esq. These statements include very little from the immediate vicinity of that city however, the greater part of the articles enumerated having been shipped from stations over twenty miles out from Brooklyn. Market gardeners within that distance generally bring in their produce in wagons, and carry out manure on their return. The table below gives the shipments of the articles named during the years 1858 and 1859, by Railroad into Brooklyn and New-York:

	1858.	1859.
Potatoes, bushels,	171,449	163,373
Peaches, baskets,	5,044	(crop failed.)
Milk, quarts,	3,221,158	3,197,910
Blackberries, quarts,	61,879	100,245
Fish, (for market,) tons,	2,200	2,284
Guano, tons,	1,712	1,721
Horse manure, carmen loads,	71,077	105,466
Ashes, bushels,	189,364	317,774
Hay, tons,	1,200	2,900

The accounts of the Long Island Railroad Company also show that the number of cart loads of stable manure boated from New-York city and sent eastward on their line, has been constantly upon the increase for the past six years. For instance the number of cartloads shipped during

The year ending March 31,			1855, was,	19,177
do.	do.	do.	1856, was,	25,167
do.	do.	do.	1857, was,	39,162
do.	do.	do.	1858, was,	36,515
do.	do.	do.	1859, was,	71,077
do.	do.	do.	1860, was,	92,269

AN AGRICULTURE THAT IS NOT EXHAUSTIVE.—Our friend of the Homestead in commenting upon the fears expressed by Liebig, Mechi and other "good people," that the world at large and England particularly are destined to ultimate barrenness, remarks very justly—and to American farmers very suggestively—that "it is better to know how to get 90 bushels of corn to the acre, and exhaust the land by so doing if you do not manure sufficiently, than not to know how to get over 20, or not to dare to for fear of robbing your grandchildren." But what goes before this remark will help to explain its meaning: —

"As a general rule those farms *are undergoing the exhausting skinning process fastest, where the crops are and have been smallest.* Go on with your draining and deep plowing, and 'exhausting tillage,' just so long as you get increasing fertility to reward your labors, but at the same time add those substances which you remove, or stand ready to do so the moment, or rather just before the supply in the soil is too much exhausted. If you fail in your calculations, and a year or two the crops drag hard upon the supply, the world will not come to an end; there is manurial material enough left in the soil and at large in the world, and a little time and proper additions will make all right. This is not a desirable condition of things, certainly; but it is much better to be able to take all out of a soil that you choose, than to be able only to take a certain limited portion."

In other words, if we in the older States can make manure enough to get really good crops off from our land, now, we can make and procure enough to maintain these crops, in all probability. What is true of all pursuits in the world—the rarest cases of apparent chance alone excepted—is we believe equally true in Farming:—*if we do our very best in the present*, the future will to a great degree take care of itself. "Alas," sadly says our contemporary, "Alas, we know of not one solitary farm whereon as much manure is made as possible!" This is *the* great point, to which all experience abroad and at home bears ample witness that our attention must be mainly directed, in order to secure a system of Agriculture that is not exhaustive.

☞ Gen. J. S. GOE of Fayette Co., Pa., had his Annual Sheep-Shearing on the 31st ult., an account of the proceedings at which was received too late for our last number. A President of the meeting was chosen, who appointed a committee to superintend the shearing and weighing of the fleeces, &c. They made a report highly commendatory of Gen. G.'s flock of Spanish Merinos, as well as of his Black Hawk and other horses and Short-Horned cattle, which is too long for publication in our columns. It appears that 30 Spanish Merino ewes were sheared which had been washed, and 44 which had not been washed. The average weight of fleece for the former lot was 6 lbs. 2 oz., and for the latter not quite 8¼ lbs. Three bucks were also sheared of the same breed, giving fleeces respectively of 13 lbs. 5 oz., 12 lbs. 6 oz., and 13 lbs. 3 oz.—and these, as well as all the others, are said to have been fleeces of only one year's growth or under.

GENESEE VALLEY HORTICULTURAL SOCIETY.—At the late exhibition of this Society, the collection of roses was perhaps unsurpassed by anything of the kind in this country. Corinthian Hall presented a brilliant display. Ellwanger & Barry and A. Frost & Co., each had on the table between 400 and 500 varieties, among which there were nearly three hundred sorts of hybrid perpetuals in each collection. The former had about fifty kinds of Moss roses. But it was not so much the large number, as the richness and rareness of many of the specimens that rendered them remarkable. The combination of colors as shown in the profusion of brilliant flowers, bursting buds, and green leaves, in a large portion of those from Ellwanger & Barry excited much admiration.

The Strawberries embraced many fine collections. The best six, selected from about fifty sorts from Ellwanger & Barry, were Wilson's, Victoria, Triomphe de Gand, Genesee, Brighton Pine and Scott's Seedling. A dish of Triomphe de Gand, from H. E. Hooker & Co., took the first prize for a single variety. This variety is rapidly growing into favor for its great size, fine quality, hardiness and productiveness.

☞ The Boston Cultivator mentions the importation by Mr. HOWARD of a Kerry bull and two Kerry heifers for Mr. A. W. Austin, also of "a noted steeple chasing mare" for a gentleman of that city, and eight superior Cotswold sheep from Mr. Read of Cirencester, as follows: one ram and two ewes for D. B. Hinman, Esq., of Westchester, Pa., one ram and two ewes for Richards Bradley, Esq., of Brattleboro', Vt., and two ewes for Albert Fearing, Esq., of Hingham, Mass.

☞ E. CORNELL, Esq., of Ithaca, has lately returned from Kentucky, with a number of Short-Horns selected during his visit in that State—including three heifers of Mr. ALEXANDER'S breeding, five bred by Mr. JOHN CURD of Lexington, and one bred by the Messrs. WARFIELDS. They will prove a valuable addition to the Improved Stock of that part of the State.

FINE CHERRIES.—We are under obligations to Prof. JAMES HALL of this city, for a basket of very large and fine cherries, from his garden at Hall's Place, where he has proved himself a most skillful fruit-culturist. Among them, were superior specimens of Elton, Napoleon Bigarreau, Knight's Early Black, Wendell, White Bigarreau, and Coe's Transparent.

☞ We acknowledge a fine lot of mammoth Black Raspberries, raised by Mr. H. H. Doolittle of Oaks Corners, Ontario Co., through Messrs. Wollenman & Lochner of this city.

☞ Our friend JOHN WILSON, of the Albany Nursery, sends us an excellent sample of Brinckle's Orange Raspberry.

THE SYRIAN GRAPE.—It will perhaps be news to some of your readers, to hear that the Palestine or Syrian grape ripened in the open air at Lynchburg, in this State, last year, bearing bunches three feet in length and twelve or fifteen inches broad. I procured a vine one year old last fall, which has stood the winter without any protection, and is now making a tolerable good growth.

Mont. Co., Va. J R. GARDNER.

☞ As the time approaches of our usual Autumn Exhibitions, it is proper to remind the reader, in a word or two, of the good Ends they are intended to subserve, and to urge a more general Support of their Agricultural Societies upon our Farmers at large.

The truth is, that it is not the individual efforts of any board of Officers, nor the local contributions of any single District, that can render a Society or its Shows in the highest degree successful. The whole Region embraced under its constitution, whether it be Town or County or State, must be actively interested, and no single village or towns or counties should be left with the whole responsibility of its support. Farmers often nearly or quite neglect the meetings and the affairs of their Societies, and then complain that their localities have been slighted or their own interests not looked after. If their voices had been present to share in the Counsel, temperately advocating for themselves no more than they were willing in turn to accord to others, the Result would probably have been different—common Co-operation and common Forbearance, an earnest and perhaps sometimes an apparently self-sacrificing Activity, are essentials, upon the importance of which we fear a Sermon might be advantageously preached before half the County Organizations in the State.

We do not propose to undertake the task at present, however—having merely thrown out these hints, in order to add, that, with this general Support extended to our Societies, they will become with each recurring year a more efficient Agency in promoting the material interests of those who labor thus earnestly in carrying them on—not only in a general point of view increasing the weight and power of the name of FARMER, but also, through channels more direct, raising the standard of his Practice, promoting the improvement of his Stock, the adornment of his Grounds with Fruits and Flowers, and the attractiveness of his Home for those who are growing up—either to cling to, or abandon his pursuit, according to the kind of Example he sets them in following it.

With the Prosperity which now seems in a greater degree than usual, to be promised to the Farmers of the Country, we trust they will be prepared to join with more zeal in the management of the coming Exhibitions of their Societies. So far as we learn of the present condition of Societies in this State, their Autumn Shows bid fair to meet with at least the customary degree of success—Let old jealousies, if there are any, be laid aside, and new exertions put forth, to render them worthy of the Agriculture of New-York and the Energy of her population.

☞ We have received from Messrs. Blymyers, Bates & Day, of Mansfield, Ohio, a sample of Sorghum Sugar, made by Mr. O. N. Brainerd of Marion, Iowa, from Green Cane, upon "Cook's Improved Portable Sugar Evaporator." This valuable invention is now manufactured by the above Firm, whose Advertisement will be found in another column. The sugar sustains the opinion of its quality therein expressed.

MORE SEEDS.—The Washington correspondent of a New-York paper writes that the "Commissioner of Patents, Gov. Thomas, desiring to infuse new life into the Agricultural department of his office, has sent out Col. Clemson to Europe to purchase good seeds suited to our climate and wants. That gentleman has large practical experience and ability as an agriculturist. Wheats, Italian barleys, &c., are to be special objects of acquirement. New and valuable seeds and plants are also to be obtained at any cost consistent with the appropriation of $60,000."

☞ The New-Jersey State Fair takes place this year at Elizabeth, Sept. 4–7. The Premium List is issued and may be had, we presume, by application to W. M. Force, Secretary, Trenton. President, N. N. Halsted of Harrison; Treasurer, C. M. Saxton of Orange.

☞ The next show of the Clinton Co. Ag. Society is to take place at the Cumberland Park, Plattsburgh, Sept. 10 and 11—President, Hon. P. G. Ellsworth; Secretary, W. H. Bailey.

THE APPLE INSECT.—Mr. WEIR of Lacon, Ill., has favored me with specimens of the apple insect spoken of by him in the COUNTRY GENTLEMAN of May 31st. It is the largest species of the weevil kind which we have in our country, and is the New-York weevil, (*Ithycerus Novæboracensis,*) thus named by Forster in the year 1771, other names having since been given it by other writers who were unaware it had already been described. It however is a very rare insect in our State at the present day.

ASA FITCH.

MACHINERY IN FARMING.—The most laborious part of farming operations is now rendered, through the improvements in machinery, a pleasant pastime; instead of scouring the neighborhood, as formerly, for able-bodied laborors to cut grain and grass, the proprietor of a farm can ride on eliptics, and driving his favorite team, cut his whole crop in a very short time. The hay is gathered into winrow in the same pleasant manner, with the independent horse tooth rake, provided with a seat for the driver—and with "Jarrett's Patent Self-Unloading and Adjusting Hay Elevator" it is carried into the mow, however high, by horse power. This improvement in the hay fork will effect a great saving of time and labor in unloading hay, being so constructed as to require no attention from the person managing it, either in tripping the fork or adiusting it again for another load, both being perfectly done by the operation of the elevator itself. W. P.

New-Jersey.

☞ We note a current rumor that the time of the United States Agricultural Exhibition at Cincinnati, is to be from Sept. 12 to the 20th. Moreover that "no cattle will be received, on account of pleuro-pneumonia, but large premiums will be offered for horses, machinery, steam fire engines, etc."

☞ The Tennessee State Fair, this year, takes place at Nashville, opening Sept. 10th. The Programme offered is a liberal one, and a special invitation is extended to competitors from other States, as will be seen from the Advertisement published in another column, to which we call the attention of Manufacturers and all interested in exhibitions of the kind.

☞ The Illinois State Ag. Society has issued its circular announcing $15,000 in Premiums. Fair at Jacksonville, Sept. 10–14—President, Lewis Ellsworth, of Naperville; Secretary, John Cook, of Springfield.

☞ The State Board of Agriculture of Indiana are to hold their Show for 1860 at Indianapolis, Oct. 15–20, with a prize list amounting to $12,000, "open to the world"—President, G. D. Wagner; Secretary, W. T. Dennis.

☞ The St. Louis Ag. and Mech. Association are ready with another schedule of premiums amounting, they say, to over $20,000. The Show opens Sept. 24, and continues during the week—President, Andrew Harper; Secretary, G. O. Kalb.

☞ The Premium List is now ready for the Fifth Exhibition of the Kentucky State Ag. Society at Bowling Green, Sept. 18–22. It is judiciously arranged and liberal in its offers. President, Col. L. J. Bradford, of Augusta; Secretary, R. W. Scott, Frankfort.

☞ The Second Fair of the Sanilac Co. (Mich.) Ag. Society will be held at Lexington, Sept. 27, 28—President, John Sheldon; Secretary, Charles Waterbury.

☞ The Rock Island Co.. (Ill.) Ag. Society's Fair takes place at the city of that name Sept. 19–21—President, Ben Harper; Secretary, D. F. Kinney.

☞ The Ulster Co., (N. Y.) Ag. Society, holds its Fair at Kingston, Sept. 26–28—President, C. L. Kiersted; Secretaries, S. Frame and B. B. Hoornbeck.

☞ A Society has been organized at Milwaukee, called the "Wisconsin Agricultural and Mechanical Association," based upon the same plan as that which has been so successful at St. Louis. Seventeen citizens have already subscribed $7,000, and the Fairs are to be held at the Cold Springs, two miles west of the city—President, Dr. E. B. Wolcott; Secretary, J. A. Lapham. Hon. W. D. McIndoe is mentioned as one of the prime movers in the undertaking.

TALL CABBAGE.—A Sonora (California) paper gives the following account of an immense cabbage plant now growing in the garden of Mr. Bennett, formerly of this city, but now a resident at that place:—"It has already attained the enormous height of eight feet. The stalk is about the size of a man's wrist, and stretches up four feet before it exhibits any leaves or branches. It is more than one year old, and Mr. B. thinks as it is of the evergreen family, that it could be profitably cultivated for shade and ornamental purposes. The most interesting fact connected with this remarkable vegetable is, that an appreciating sparrow has built her nest among its branches, which already contains three little eggs. Her tedious process of incubation will soon be rewarded by a callow brood, to enliven her home amongst the swaying branches of the old cabbage tree."

☞ J. H. KLIPPART, Secretary of the Ohio State Board of Agriculture has sent us copies of the Premium List and regulations for the State Show which is set down for Sept. 25—28, at Dayton. Competition at the Ohio Fairs is open to other States—if anybody has what is better than the Buckeyes can produce, they wish to convince themselves of the fact. Hence outsiders are always welcome as exhibitors, and may carry away whatever prizes they can win. Indiana and Kentucky, particularly, this year should "make a note" of these facts.

☞ FRANKLIN COUNTY is to hold its next Fair at Malone, on the 11th to 14th of September. The address will be delivered by Horace Greeley on the 13th, at 1 o'clock, P. M. The premium List has been greatly increased, the show grounds enlarged and beautified, a half-mile track prepared, and vigorous efforts are being made to make the exhibition all that it is desirable a County Fair should be. A. Lindsay, Esq., is the President, and Smith Palmer, Secretary.

☞ The First Annual Exhibition of the Breckenridge County (Kansas,) Agricultural and Mechanical Society is announced for the present season at Emporia—President, R. H. Abraham; Secretary, P. B. Maxon. Like many of the most successful Societies in older regions, the Premiums offered will be chiefly made up of Agricultural Papers.

☞ A Horticultural Society in apparently prosperous condition, exists at St. Paul, Minnesota, and we have received, too late for earlier notice, their schedule of prizes awarded at an exhibition announced for the 4th instant. Alex. Buchanan, President; S. Hewson and M. Ford, Secretaries. We trust the Show went off finely.

☞ The Tenth Annual Fair of the Gallia County, Ohio, Agricultural Society, is to be held at Gallipolis, Sept. 11th and 12th. President, Augustus S. Guthrie; Secretary, J. L. Vance; Treasurer, J. C. Neal. Much obliged for the compliments to our journals in the Premium List.

☞ The Show of the Jackson Co. (Mo.) Ag. Society, is put down for Sept. 4–9, at Independence City. B. F. Thompson, President; Schuyler Lowe, Secretary.

A HINT TO ORCHARDISTS.

Throughout a large portion of the country, as all are aware, a part of the limbs of apple orchards are found dead, more especially towards the extremities, and generally believed to be the effect of some of the past severe winters. Many trees are recovering, becoming more vigorous, and bearing, but the dead limbs remain. These dead branches now need pruning out; and we are not sure that an advantage may not result to the trees from this disaster, by teaching many orchardists to prune better than they ever have done. The general and erroneous propensity is to *trim upwards*,—to thin out and cut off all below, but a few main limbs which are thus converted to bare and crooked poles, supporting the foliage and crops on their extreme upper ends. Instead of this absurd course, the heads should be thinned out above, and the growing part brought down nearer the centre of the tree. As the tendency of growth is to lengthen the arms, so the tendency of pruning should be to shorten these arms again, so as to keep the head in a reasonably compact and handsome form. Cutting out the dead ends of the limbs will in many instances exactly accomplish this purpose. Now, at midsummer, is the best time to do it.

[For the Country Gentleman and Cultivator.]

ON CURRANT WINE MAKING, &c.

In answer to A. R. of Troy, C. B. H. of Buffalo, and others who have written me on this subject, I have to state that I do not know any who have plantations of currants on a large scale, although there is no doubt there are many in different parts of the country who cultivate them extensively. I neither know of any especial work published on the manufacture of wine from currants. The best receipt I know, and which I have used in making it, will be found in the COUNTRY GENTLEMAN for June 28 of this year, by another correspondent—viz., one part of the juice of the currant, three pounds of best refined sugar, and as much water as to make one gallon; put the whole in a cask, and roll it to dissolve the sugar. Put it under cover to ferment, either in a vat or in the cask that is to hold it; when the fermentation is over bung it, and stow it in a cool cellar, when it is ready for use or shipment. The receipt given in no. of 28th June, is practically the same.

The only market I know for the disposal of the wine, is at the South and the West Indies, as also in the neighborhoods where it is made, most families using it there. Consignments can be made either to Mobile, New-Orleans, San Augustine, Pensacola, &c., and the West Indies generally. About forty or fifty years ago there existed a currant yard near Providence, R. I., producing from 800 to 1,200 gallons of currant wine per acre, which was then chiefly exported to and sold in the West Indies. F. A. NAUTS. *New-York, July* 12, 1860.

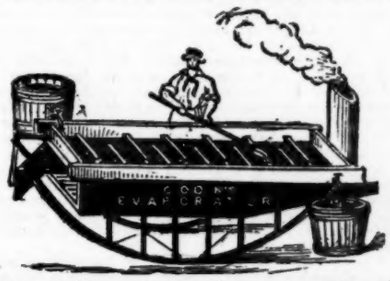
COOK'S PORTABLE SUGAR EVAPORATOR,

For Making Sorghum Sugar.

The most Rapid Evaporator in the World!

DISPENSES WITH CLARIFYING AGENTS, AND

IS A PERFECT SELF DEFECATOR.



Is the only one which removes certain gummy mattters which would otherwise prevent granulation, and hence is

The only Machine which makes Sorghum Sugar successfully!

It is simple, portable, takes but little fuel, and never fails to give perfect satisfaction.

Prices, &c., of Evaporator.

No. 2—Pan 45 by 72 inch. galvanized iron,	$45;	same size copper,	$65.
No. 3—Pan 45 by 90	do.	do.	55;	do.	do.	75.
No. 4—Pan 45 by 108	do.	do.	65;	do.	do.	85.

WEIGHT WITHOUT BRICK.	CAPACITY FOR BOILING GOOD CANE JUICE.
No. 2—245 pounds.	No. 2—about 2 barrels per hour.
No. 3—280 pounds.	No. 3—about 3 barrels per hour.
No. 4—330 pounds.	No. 4—about 4 barrels per hour.

"Operates admirably."—American Agriculturist.
"Entire success."—Cleveland Plaindealer.
"Very valuable invention."—Scientific American.
"Makes actual veritable sugar."—N. Y. Tribune.
"The most successful."—Ohio Cultivator.
"Working wonders."—Milwaukie Democrat.

The following are the names of a few of the many who have made this "actual, veritable sugar," equal in appearance and flavor to the best New Orleans.

H. Mansfield, Lexington, O.; Enoch Payne, Springfield, Ill.; O. N. Brainard, Marion, Iowa; Isaac Karsner, Florida, O.; J. Q. Beattie, Defiance, O.; John Richards, Tecumseh, Mich.; John Reed, Mansfield, O.; W. Corothers, Lexington, O.; E. S. Raker, Locust Corner, Ohio, &c., &c.

☞ Send for Circular to BLYMYERS, BATES & DAY,
July 26—w&mtf. Mansfield, Oh.

GRAPE ROOTS.—Our stock of Grape roots will exceed 500,000. Prices as follows:

Catawba, one year old,	$15.00 per 1000
" two year old,	25.00 "
Isabella, one year old,	25.00 "
Diana, one year old,	25.00 per 100

Liberal discount to dealers. J. M. McCULLOUGH & SON,
July 26—w17t. 200 Main St., Cincinnati, Ohio.

FARM AND RESIDENCE FOR SALE

At Madison Morris Co., N. J.

The subscriber offers for sale his residence, consisting of 164 acres of land, with fine improvements, including a spacious Mansion House, grapery, fruit of all kinds, commodious barns and farm buildings, tenent houses, &c. Morris county is celebrated for the favorable effects of its climate upon consumptives or those troubled with bronchial affections. This property is an attractive one to a gentleman of means. Madison is distant 1 hour and 20 minutes from New-York city, by Morris and Essex Railroad. For particulars address the owner. ALFRED M. TREDWELL, 45 Fulton-st., New-York City.

THOROUGH BRED NORTH DEVON AND AYRSHIRE CATTLE.

In consequence of above, I offer for sale, in lots to suit purchasers, my entire stock of Thorough Bred Cattle, at reduced prices. For particulars address as above. July 19—w4tmlt.

EMERYS' PATENT COTTON GIN,

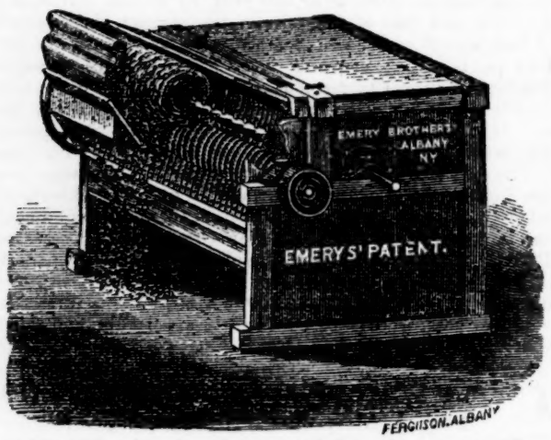
MANUFACTURED BY

EMERY BROTHERS,

PROPRIETORS OF THE

ALBANY AGRICULTURAL WORKS,

ALBANY, N. Y.



The Cotton Gin is one of the most important among modern inventions and any improvements in it, or its operations, are, as they should be, eagerly sought for by the cotton producer. The enormous amount of cotton, and its great value, which is annually made in this country, causes even the smallest improvement in its manipulation to command a ready adoption; and the numerous inventions and patents granted therefor since the introduction of Whitney's Saw Cotton Gin, go far to attest the great necessity and inducements for improvements. It is believed by the makers, who are familiar with previous efforts and patents, that their own improvements are among the most valuable since Whitney's time, and that they are chiefly in a different direction from nearly all other inventors, and which have been overlooked by them. One of the best points in their improvement is that it is applicable to all saw gins now in use, as well as those being manufactured by the proprietors, while it is both simply and cheaply applied. The improvement consists chiefly of a central cylinder shaft of wood or other light material, so suspended within the hopper, upon its journals at both ends, as to occupy the hollow space within the cotton roll in the hopper, which is produced by the centrifugal force of the revolving mass.

This shaft is thickly studded throughout its surface with radially projecting pointed pins, which become imbedded in the cotton, causing the shaft to revolve in unison with the roll by the force and motion which the cotton receives from the action of the saws upon it.

Its purposes and objects are to produce a uniform motion of the roll throughout its whole length and circumference, and to support the seed cotton and prevent that portion which is presented to the action of the saws from being compressed by the weight of the cotton roll upon the saws; also to avoid the consequent cutting and napping of the lint which would be caused thereby. Its use produces a constant motion of the roll positively relative to that of the saws, and preserves its cylindrical form, irrespective of the different and varying velocities of the saws, or the centrifugal force of the revolving mass in the hopper.

This shaft, with its pins, prevents all choking, clogging, bridging and breaking of the cotton roll from careless feeding or matted condition of the seed cotton, as the positive and forcible motion produced by the action of the saws upon that portion of the seed cotton roll lying between the saws and the shaft and communicated through it and its pins to the whole roll, is sufficient to overcome all such irregularities, as also to admit of the gin being worked up to the maximum power applied, be it more or less, without danger of stopping the operation of the gin or injuring the quality of the lint. It also enables the gin to be worked with almost any power, and at any velocity, with uniform results; consequently increasing the capacity for work in like proportion.

The proprietors have also completed their attachment for the gin, which enables the whole to be operated upon the field, if desired, and without any lint room or gin house being required, and also for cleansing the lint from all dust and sand, delivering it at one and the same operation in fit condition for baling and the market. The attention of cotton growers and dealers in like kinds of machinery is called to them. The prices of the gins and condensers are as follows:

The 45 Saw Gin with improvement,	$110.00
" " without improvement,	90.00
The Cotton Duster and Condenser for same,	90.00
For each additional Saw,	2.50
For larger Duster and Condenser for each extra saw,	1.00

All orders addressed to the manufacturers will receive prompt attention. EMERY BROTHERS, 62 & 64 State-st., Albany, N. Y.

July 26—w3m1t.

THOROUGH-BRED AYRSHIRES AND NORTH DEVONS FOR SALE.

The undersigned having offered his residence for sale, will dispose of his entire stock of Thorough-Bred Cattle at reduced rates, in lots to suit purchasers. There are several animals of great merit in this herd, which are only rarely to be secured. Will also sell his stock of Horses and Colts, including three of the best Stallions of their age that can be shown. For particulars address

ALFRED M. TREDWELL,
Madison, Morris Co., New-Jersey,
June 28—w4tm2t. or 45 Fulton-st., New-York City.

ALL KINDS OF AGRICULTURAL BOOKS.

Farmers, Gardeners, Nurserymen, Fruit-growers, Dairymen, Cattle Dealers, and all persons interested in tilling the soil or adorning their grounds and dwellings, will be supplied with the most complete assortment of Books relating to their business that can be found in the world, by

C. M. SAXTON, BARKER & CO.,
Agricultural Booksellers and Publishers of the Horticulturist,
No. 25 Park Row, New-York.

☞ Catalogues gratis. Books sent by mail. AGENTS WANTED.
Mar 15—w15tm3t

LAWTON BLACKBERRY.—To

obtain the original variety for field or garden culture, address
WM. LAWTON, New Rochelle, N. Y.

☞ Circulars, with ample directions, will be forwarded to all applicants, free. Aug. 1—m12t.

ALBANY TILE WORKS,

CORNER CLINTON AVENUE AND KNOX STREET, ALBANY, N. Y.

The Subscribers, being the most extensive manufacturers of DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, ROUND, SOLE and HORSE-SHOE TILE, warranted superior to any made in this country, hard-burned, and over one foot in length. Orders solicited. Price List sent on application. C. & W. McCAMMON,
Jan. 5—wtf.—Feb 1—mtf. Albany, N. Y.

I. T. GRANT'S PATENT DOUBLE BLAST FAN MILLS.

They will chaff and screen wheat in passing through the mill once, in the most perfect manner, and all kinds of grain and seed. Warranted the very best in use.

Patent Rights for sale of all the Western States.
Address I. T. GRANT & CO.,
May 1—m12t Junction, Rensselaer Co., N. Y.

INVENTION TRIUMPHANT!

The Cost of Draining Reduced One-Half

BY THE USE OF

CALLANAN'S DITCH DIGGER AND SUBSOILER.

PRICE, with wheels, axle-tree and reversable tongues, $50. Satisfaction warranted. Also SHOVELS, made expressly to be used in connection with the Ditcher—just the thing—Price $1.50.

Address D. CALLANAN
June 21—w13tm3t* Callanan's Corners, Albany Co., N. Y.

STEEL PLOWS.—We are manufacturing

for the spring trade large numbers of our Mohawk Valley Clipper Plows with steel mold-board and land-side, with steel or cast point, as desired, and would refer you to the following persons, who have them in use:

John Johnston, Geneva, N. Y.
J. Ingersoll, Ilion, N. Y.
Wm. Summer, Pomaria, S. C.
R. C. Ellis, Lyons, N. Y.
Col. A. J. Summer, Long Swamp, Florida.
A. J. Bowman, Utica, N. Y.
A. Bradley, Mankato, Minesota.
F. Mackie, Utica, N. Y.

We are also manufacturing Sayre's Patent Horse Hoe and Potato Covering Machine, Sayre's Patent Cultivator Teeth in quantities for the trade; and all kinds of steel and swage work in the agricultural line. Send for a circular, SAYRE & REMINGTON.
Jan. 26—wtf Mar. 1—mtf. Union Agricultural Works, Utica, N. Y.

IMPROVED SHORT-HORN CATTLE.

The subscriber, desirous of reducing his herd in numbers, offers for sale at moderate prices,

BULLS, COWS AND CALVES

Of excellent quality, with good Pedigrees.

On application by mail a Catalogue will be sent with

Pedigree and Price of each Animal offered for Sale.

Address by mail, at Rhinebeck, N. Y.,
WILLIAM KELLY
Ellerslie Farm, one mile
South of Rhinebeck Station, Hudson River Railroad.
June 7—w7t.

PURE BRED STOCK FOR SALE.

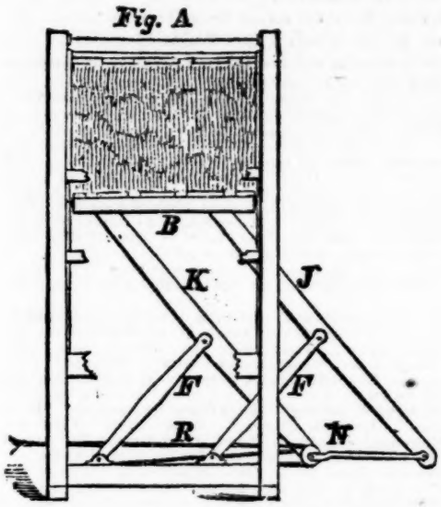
Pure Bred Durham Cattle at $75 to $250. Spanish Merino and French Merino sheep at $10 to $30. Improved white pigs, $8 each. Madagascar rabbits at $10 per pair. Brood mares, served by "Bush Messenger," at $125 to $300. Black Hawk, Morgan, Bashaw and Messenger Stallions, from six months old up to full grown and trained animals, at $75 to $600.

All animals sold will be carefully boxed or haltered, and placed at the Express Office.

My residence is 4½ miles east of Brownsville, Fayette county, Pa. Post Office Box No. 6. May 19—wtf. JOHN S GOE.

ALBANY HAY PRESS WORKS.

Fig. A



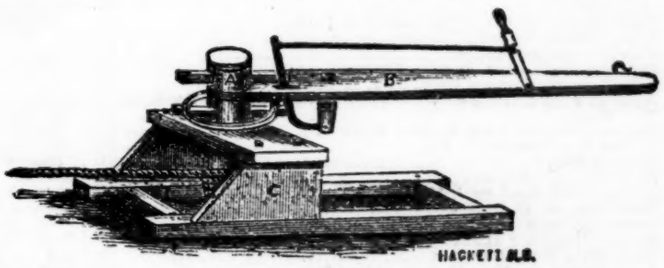
LEVI DEDERICK & CO.,

PROPRIETORS AND MANUFACTURERS OF

Dederick's Paralle Lever Hay Press,

AND

PHILIPS' PATENT CAPSTAN.



THIS PARALLEL LEVER HAY PRESS, so well known and so justly celebrated, has been greatly improved during the last year, and as now manufactured and sold defies all competition. It has been awarded the first premium by the N. Y. State Agricultural Society, for six successive years, and by the U. S. Agricultural Society in 1857 and 1859, or every time it was exhibited. It is made in different sizes, for hand or horse power, at prices varying from $65 to $165. As a horse press it has no equal. As a hand press it exceeds beyond description any and all hand presses yet invented.

Philip's Patent Capstan, (by which the danger and tedious operation of the common capstan is entirely obviated, as well as much time saved,) is furnished with the above horse presses if desired, or separately for horse presses of every kind. All the advantages of this Capstan will be readily understood, when it is known that the horse is not removed from the sweep to lower down the press. For particulars address the subscriber, or the patentee, Peter Philip, Hudson, N. Y.

N. B. Irons, &c., for Stationary Presses and Capstans, for sale. Agents wanted in every State to introduce and sell them.

I have finished portable horse presses, as well as hand presses, constantly on hand, and can furnish the trade, or will fill orders direct. Circulars containing sizes, prices, &c., sent free on application.

Address LEVI DEDERICK & CO.,
July 5—w&m1t. Albany, N. Y.

SELECT TURNIP SEED.—

B. K. BLISS, Springfield, Mass.

The following varieties have been grown with much care, from selected roots, and can be confidently recommended to those who desire a reliable article.

	Cts. per lb.
Early White Flat Dutch	75
Red Top Strap Leaved Flat	50
White, do. do.	50
Extra White Flat, (very superior,)	75
Long White Vertus	75
Long White Tankard	50
Long Red do.	50
Long White Improved, (extra fine,)	75
Large White Globe	50
Large White Norfolk	50
Large Red do.	50
Robertson's Golden Ball, (excellent for keeping,)	75
Yellow Aberdeen	50
Yellow Malta	75
Long Yellow French	75
Yellow Dutch	75
Yellow Finland	75
Teltow or Small Berlin	$1.00
Freneuse	75
Stubble Stone	50
Dale's Hybrid	50
Ruta Baga, (Skirving's,)	50
do do. (Laing's Improved,)	50
Waite's Eclipse Purple Top	50

A liberal discount to dealers. A Descriptive Catalogue of Seeds will be mailed to all applicants enclosing a postage stamp.

B. K. BLISS,
July 19—w3t. Springfield, Mass.

STRAWBERRIES! STRAWBERRIES!!

As the season for planting out beds of Strawberries again returns, one naturally asks himself the question, what variety shall I plant? Our answer in all cases is, "Wilson's Albany." Price of plants per 100, $1; per 1000, $8. A liberal discount to the trade. Packing, for which no charge is make, guaranteed extra. Send your orders for the same to the Albany Nursery of JOHN WILSON,
July 12—w12t. Albany, N. Y.

TRUE DELAWARE GRAPEVINES—also, Logan, Rebecca, Diana, Concord, Hartford Prolific, Union Village, Anna, Clara, and other new varieties. Wilson's Albany Strawberry, Kirtland Raspberry, &c. GEORGE W. CAMPBELL,
Dec. 15—w9mos. Delaware, Ohio

SPANISH MERINO SHEEP.—N. & N. Bottum, Breeders of pure blood Atwood Sheep, of the Hammond stock.
Jan. 26—w1yr. Shaftsbury, Vt.

NOTICE TO FRUIT GROWERS.

I have for sale a number of volumes of the FRUIT AND INSECTS of the STATE NATURAL HISTORY, with colored plates and descriptive letter press. Will be sold low to early applicants.

HARRY E. PEASE, Lithographic Engraver and Painter,
May 3—w3tm3t 518 Broadway, Albany, N. Y.

I. T. GRANT & CO., PATENT GRAIN CRADLE.

They are so improved as to be taken down and packed in boxes for transportation. One dozen can be packed in a box of about six cubic feet. We also make the Grapevine Cradle. All of the above are made of the best material and workmanship. For Price List, address

I. T. GRANT & CO.,
May 1—m12t Junction, Rensselaer Co., N. Y.

HORSE POWERS AND THRESHING MACHINES for sale by A. LONGETT,
May 1—m3t 34 Cliff street, New-Yrok.

BOARDMAN, GRAY & CO.—

ELEGANT ROSEWOOD CASES!

GOOD AND DURABLE!

WARRANTED!

Send for Circulars, giving full description.

BOARDMAN, GRAY & CO., Manufacturers,
ALBANY, N. Y.

Ap5—w&mtf

THE FRENCH RASPBERRY FOR SALE at $5 per 100; $40 per 1000; $150 per 5,000; needs no winter protection, and bears two annual crops of fruit. Isabella Grapevines, one to two years old, $5 per $100; $40 per 1000; two to three years old, $10 per 100; $75 per 1000; three to four years, $15 per 100; $125 per 1000. Exchanges for Pear Stocks, if desired, will be made.

Fruit and Ornamental Trees, Shrubs and Plants in general.

RICHARD M. CONKLIN,
Sept. 29—wtf. Evergreen Nursery, Cold Spring Harbor, L. I.

NORTH DEVON CATTLE.—Bulls, Bull Calves, Heifers and Heifer Calves for sale, with good pedigrees, sired by my prize bull Empire. JOSEPH HILTON,
May 17—wtf. New Scotland, Albany Co., N. Y.

JOHN T. ANDREW, West Cornwall, Ct.,

FACTOR IN IMPROVED STOCK,

Breeder of DEVON CATTLE, NEW-OXFORDSHIRE SHEEP, &c.
Feb. 16—wtf

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PUBLIC SALE OF PURE BRED SHORT-HORN AND North Devon Cattle; Brood Mares, Colts and Stallions; Berkshire, Essex and Suffolk Swine, And a small flock of South Down Sheep.

"THE ALBANY COUNTY BREEDING ASSOCIATION," will sell at Public Auction at the "LOG TAVERN FARMS," on the New-Scotland Plank Road, two miles from Albany, N. Y., on WEDNESDAY, SEPTEMBER, 12th, 1860, at 12 o'CLOCK, M., a select and large herd of SHORT-HORN Cows, Heifers, Young Bulls, and Calves; including "Minna," by imported Duke of Gloster (11382,) and the imported cows Flattery, bred by Earl Ducie, and got by 4th Duke of York, (10167;) Bloom, bred by Mr. Fowle, and imported by Col. L. G. Morris; Finella, bred by S. E. Bolden, Esq., and imported by Mr. Alexander, got by Grand Duke, (10284,) and her calves by imported Sirius and imported Neptune--also imported Neptune 3192, (11847,) and several Bull and Heifer calves of Neptune's get.

NORTH DEVON Cows, Bulls and Calves, mostly bred from imported stock, including the celebrated prize bull Empire (424,) and his get.

TWENTY BROOD MARES, of the BLACK HAWK and MESSENGER breed, including the celebrated Black Hawk Maid, by the original Vermont Black Hawk; "Rose Allen," by "Ethan Allen," and others sired by Black Hawk, Messenger and English Stallions.

Also 13 spring colts, 13 yearling colts, 10 two years and three years old, nearly all of which were sired by the noted trotting stallions "Black Murat," George W. Adams' English Horse "American," "Henry Clay," "Logan," "Gray Messenger," "Ethan Allen" The Spirit of the Times, Chevalier the Black Hawk, Gray Prince, the sire of General Darcy, and Addison, who was sold for the sum of $5000.

The proprietors have been many years engaged in breeding the FAST TROTTING HORSE, and they flatter themselves that there has never been offered to the public for sale, at any one time, such a numerous and desirable stock as can be found named in the Catalogue. Sale positive, without regard to weather.

TERMS.—Good notes at four months, without interest.

CATALOGUES now in press, and will be mailed by applying by letter or otherwise, to either of the undersigned, or to R. H. BINGHAM, 48 Steuben Street, Albany, N. Y.

Carriages will run hourly from the Stanwix Hall.

WILLIAM M. BULLOCK, Bethlehem, near Albany.
JOSEPH HILTON, New-Scotland.
WILLIAM H. SLINGERLAND, Norman's Kill.
WILLIAM HURST, Albany, N. Y.
GEO. W. ADAMS, Whitehall, N. Y.

Albany, July 26—w6m1t. BREEDERS AND MANAGERS.

PREMIUM STRAWBERRIES.

WM. R. PRINCE & CO., Flushing, N. Y., offer the following. When very large quantites are wanted, the price can be fixed by negotiation. The following $1 per 100, $5 to $7 per 1,000. Alpine Wood, (red and white,) Boston Pine, Burr's Pine, Crimson Cone, Early May, Early Scarlet, Genesee, Hooker, Hovey, Hudson, Iowa, McAvoy's Superior, McAvoy's No. 1, Moyamensing, Orange Prolific, Peabody's Prolific Hautbois, Rival Hudson, Scarlet Cone, Walker, Wilson's Albany, $5 per 1,000. These, $1.50 per 100, $7½ to $10 per 1,000,—Alpine Monthly, (red and white,) Bicton Pine, Baltimore, Bridgetown Pine, Charles' Favorite, Durfee's Seedling, Imperial Scarlet, Jennie Lind, Jessie Read, Longworth's Prolific, May Queen, Omer Pascha, Read's No. 1, and Gold Seed, and Black Pine, Primate, River's Eliza Seedling, Prince's Scarlet, Magnate. $7½ per 1,000, Scarlet Melting, Trollope's Victoria, Triomphe de Gand, Vicomtesse Hericart, Western Queen. These, $2 per 100—Boyden's Mammoth, Cutter's Seedling, Cornucopia, Diadem, Eclipse, Globose Scarlet, Le Baron, Ladies' Pine, LaReine, Malvina, Myatt's Prolific, Montreuil, Sir Harry, Stewart, Triumphant, Scarlet, Voorhis, Ward's Favorite. The following by the dozen—Austin's Seedling $3; Fillmore, Randolph Pine, Prince's Scarlet Climax, Prince's Excelsior, $2. These $1—Bartlett, Chorlton Prolific, Downer's Prolific,, Elizabeth, Ladies' Finger. These $1.50 per dozen—Minerva, Perfumed Pine, Prince's Globose, Fortunatus, Florence, Fragrant Scarlet, Hermine, Seraphine, Scarlet Prize, Victorine, Waverly, Oscar, La Constante, Wonderful, Duc de Malakoff, Nicholson's May Queen, Bonte de St. Julien.

N. B. Many other varieties are for sale, and are described in our Catalogues.

REJECTED. Black Prince, Cushing, Brighton Pine, Jenney's Seedling, Climax Scarlet, Bishop's Orange, Dundee, Harlaem Orange, Monroe Scarlet, Marylandica, Pennsylvanica, Kitley's Goliath, Rival Hudson, Scarlet Cone, Scott's Seedling.

In our New Descriptive Catalogue we offer 160 varieties, including all the new varieties. July 26—w&m1t.

HORSE POWERS, THRESHERS AND CLEANERS.

PLEASE LOOK BEFORE YOU LEAP!!

I am at present manufacturing and prepared to supply a necessarily limited number of the very best

THRESHER AND CLEANER

extant. Just look at the advantages that I have over others, any one of which is sufficient to induce you to buy, if you wish to be suited to a dot. The whole machinery is driven by a single band, and consequently less power is taken to drive it. The cylinder and concave is wider than other two horse machines, enabling more grain to be threshed in a given time. The separator is much wider than the cylinder, so that plenty of room is given for the straw and grain to spread and separate thoroughly, and no grain is carried over. The separation is also more fully insured by means of forks which raise and lower at every vibration of the straw carrier, keeping the straw in constant agitation. The shoe containing the seives has the side shake of the common fan-mill, giving the grain a more thorough cleaning. Each machine is furnished with a dust spout, entirely relieving the feeder from the usual annoyance of dust. Those who have ever used a threshing machine, will appreciate this.

ORDERS MUST BE SENT IN EARLY if you wish to have them filled promptly.

ALL ARE WARRANTED.

Terms easy. Address CHAS. E. PEASE,
July 26—w2tm1t. Excelsior Ag. Works, Albany, N. Y.

GREAT CURIOSITY.—Particulars sent free.—
Agents wanted. SHAW & CLARK, Biddeford, Maine.
July 26—w26t.

BLOOMINGTON NURSERY, ILL.

WILSON'S ALBANY STRAWBERRY, Large Early Scarlet, Crimson Cone and other good sorts, pure, 100 plants packed, $1; 1000, $5. Tulips now ready, 300 named sorts, 100 strong roots, double and single, of 20 fine named sorts, $4; 12 roots of 12 named sorts, 50c. to $2. Mixed Tulips, $1, 1.50 and 25c. per dozen. Hyacinths, choice named, $2 per dozen, mixed $1 per dozen, with a general assortment of bulbs, fruit and ornamental trees. F. K. PHŒNIX.
July 26—w13t.

CIDER PRESS SCREWS—5 feet long, 4 inches in diameter. These powerful screws bring out a third more juice than the portable presses. Made by
L. M. ARNOLD.
June 28—weow3t. Poughkeepsie, N. Y. Foundry.